GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: August 25, 2004, 14:35:59 ; Search time 24.4697 Seconds
(without alignments)
1120.348 Million cell updates/sec

Title: US-09-911-777B-1
Perfect score: 1451
Sequence: 1 MDDSTEREQSRLTSCLKKRE.....ENAQISLDGDVTFFGALKLL 285

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 283366 seqs, 96191526 residues

Total number of hits satisfying chosen parameters: 283366

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR_78:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	110.5	7.6	235	2	JU0029	tumor necrosis fac
2	109.5	7.5	233	2	S11688	tumor necrosis fac
3	109.5	7.5	235	1	QWMSN	tumor necrosis fac
4	108	7.4	233	1	S24642	tumor necrosis fac
5	107.5	7.4	235	2	I54490	tumor necrosis fac
6	107	7.4	193	2	S06192	tumor necrosis fac
7	107	7.4	232	1	S12606	tumor necrosis fac
8	102.5	7.1	234	1	JH0529	tumor necrosis fac
9	100.5	6.9	205	1	QWHUX	lymphotoxin alpha
10	98.5	6.8	233	1	QWHUN	tumor necrosis fac
11	98	6.8	234	1	A25451	tumor necrosis fac
12	97.5	6.7	184	2	A82993	hypothetical prote
13	97.5	6.7	281	2	I38707	Fas ligand - human
14	94.5	6.5	347	2	A75537	hypothetical prote
15	93.5	6.4	651	1	RGBYD2	translation regula
16	93	6.4	596	2	B96834	hypothetical prote
17	92.5	6.4	185	2	S52715	tumor necrosis fac
18	90.5	6.2	204	1	S17289	tumor necrosis fac
19	89.5	6.2	233	1	S22052	tumor necrosis fac
20	89.5	6.2	234	1	JQ1344	tumor necrosis fac
21	88.5	6.1	631	2	AE3565	hypothetical prote
22	87.5	6.0	919	2	F83257	hypothetical prote
23	87.5	6.0	993	2	A38437	probable homeotic
24	87	6.0	273	2	T49495	probable phosphoma
25	86.5	6.0	1229	2	D85023	P-glycoprotein-lik
26	86.5	6.0	1229	2	T52319	P-glycoprotein-lik
27	85.5	5.9	204	1	S24641	lymphotoxin - bovi
28	85.5	5.9	351	2	S40840	hypothetical 39.3K
29	85.5	5.9	358	1	W2WL51	E2 protein - human
30	84.5	5.8	557	2	B83962	hypothetical prote
31	84.5	5.8	595	2	E87698	sensor histidine k
32	84	5.8	197	1	JH0309	tumor necrosis fac
33	84	5.8	295	2	B41320	hypothetical prote
34	84	5.8	461	2	T23574	hypothetical prote
35	84	5.8	493	2	C87362	hypothetical prote
36	83.5	5.8	351	2	F91231	hypothetical prote
37	83.5	5.8	351	2	E86078	hypothetical prote
38	83.5	5.8	462	2	T50422	homolog to yeast o
39	83	5.7	426	2	T21001	hypothetical prote
40	83	5.7	957	2	AH2227	cation-transportin
41	82.5	5.7	371	1	A43830	alanine dehydrogen
42	82.5	5.7	478	1	I47154	transcription fact
43	82.5	5.7	574	2	S04333	lamin C - mouse
44	82.5	5.7	665	2	S28182	lamin A - mouse
45	82.5	5.7	680	2	A43800	nuclear autoantige

ALIGNMENTS

RESULT 1
JU0029
tumor necrosis factor alpha precursor - rat
N;Alternate names: cachectin; TNF alpha
C;Species: Rattus norvegicus (Norway rat)
C;Date: 07-Jun-1990 #sequence_revision 07-Jun-1990 #text_change 04-Feb-2000
C;Accession: JU0029; JN0868; S21674
R;Shirai, T.; Shimizu, N.; Horiguchi, S.; Ito, H.
Agric. Biol. Chem. 53, 1733-1736, 1989
A;Title: Cloning and expression in Escherichia coli of the gene for rat tumor necrosis fa
A;Reference number: JU0029
A;Accession: JU0029
A;Molecule type: DNA
A;Residues: 1-235 <SHI>
R;Kwon, J.; Chung, I.Y.; Benveniste, E.N.
Gene 132, 227-236, 1993
A;Title: Cloning and sequence analysis of the rat tumor necrosis factor-encoding genes.
A;Reference number: JN0868; MUID:94040766; PMID:8224868
A;Accession: JN0868
A;Molecule type: DNA
A;Residues: 1-235 <KWO>
A;Cross-references: GB:L00981; NID:g205253; PIDN:AAA16275.1; PID:g205254
R;Estler, H.C.; Grewe, M.; Gaussling, R.; Pavlovic, M.; Decker, K.
Biol. Chem. Hoppe-Seyler 373, 271-281, 1992
A;Title: Rat tumor necrosis factor-alpha. Transcription in rat Kupffer cells and in vitro
A;Reference number: S21674; MUID:92329007; PMID:1627266
A;Accession: S21674
A;Molecule type: mRNA
A;Residues: 1-38,'P',40-162,'T',164-201,'S',203-235 <EST>
A;Cross-references: GB:X66539; GB:S40199; NID:g395369; PIDN:CAA47146.1; PID:g395370
C;Comment: Tumor necrosis factor is secreted by macrophages in response to endotoxin and
C;Genetics:
A;Gene: TNF-alpha
A;Introns: 62/3; 81/1; 97/1
C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; lipoprotein; lymphokine; macrophage; membr
F;80-235/Product: tumor necrosis factor #status predicted <MAT>
F;19,20/Binding site: myristate (Lys) (covalent) #status predicted
F;84/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;86/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;148-179/Disulfide bonds: #status predicted

Query Match 7.6%; Score 110.5; DB 2; Length 235;
Best Local Similarity 22.2%; Pred. No. 0.057;
Matches 54; Conservative 45; Mismatches 87; Indels 57; Gaps 11;

```
Qy          60 CLTVVSFYQVAALQGDLASLRAELQG-HHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPP 118
               ||:: || ||          |  : | :  || | |        |  : | |  |:
Db          32 CLSLFSFLLVAGATTLFCLLNFGVIGPNKEEKFPNG-----LPLISSMAQTLTLR----- 81

Qy         119 APGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSAL 178
                     :||||| :|          :: |: ::      :  |               :
```

```
Db         82 -----SSSQNSSDKPVAHVVANHQAEEQLEWLSQRANALLANG---------------M 120

Qy        179 EEKENKILVKETGYFFIYGQVLYTDK----TYAMGHLIQRKKVHVFGDELSLVTLFR--C 232
Db        121 DLKDNQLVVPADGLYLIYSQVLFKGQGCPDYVLLTHTVSRFAIS-YQEKVSLLSAIKSPC 179

Qy        233 IQNMPETLP----NNSCYSAGIAKLEEGDELQLAIPRENAQISLDG--DVT-----FFGA 281
Db        180 PKDTPEGAELKPWYEPMYLGGVFQLEKGDLL-------SAEVNLPKYLDITESGQVYFGV 232

Qy        282 LKL 284
Db        233 IAL 235


RESULT 2
S11688
tumor necrosis factor alpha precursor - cat
C;Species: Felis silvestris catus (domestic cat)
C;Date: 21-Nov-1993 #sequence_revision 10-Nov-1995 #text_change 04-Feb-2000
C;Accession: S11688
R;McGraw, R.A.; Coffee, B.W.; Otto, C.M.; Drews, R.T.; Rawlings, C.A.
Nucleic Acids Res. 18, 5563, 1990
A;Title: Gene sequence of feline tumor necrosis factor alpha.
A;Reference number: S11688; MUID:91016860; PMID:2216740
A;Accession: S11688
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-233 <MCG>
A;Cross-references: EMBL:X54000; NID:g1084; PIDN:CAA37948.1; PID:g295777
C;Genetics:
A;Introns: 62/3; 78/1; 94/1
C;Superfamily: tumor necrosis factor
C;Keywords: glycoprotein; lipoprotein; myristylation; transmembrane protein
F;19,20/Binding site: myristate (Lys) (covalent) #status predicted
F;81/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;145-177/Disulfide bonds: #status predicted

  Query Match             7.5%;  Score 109.5;  DB 2;  Length 233;
  Best Local Similarity   22.7%;  Pred. No. 0.069;
  Matches   55;  Conservative   35;  Mismatches   95;  Indels   57;  Gaps   10;

Qy         60 CLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPA 119
Db         32 CLSLFSFLLVAGATTLFCLLHFGVIGPQREELP----------------HGLQLINPLP 74

Qy        120 PGEGNSSQNSRNK---RAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGS 176
Db         75 QTLRSSSRTPSDKPVAHVVANPE---AEGQLQRLSRRANALLANG--------------- 116

Qy        177 ALEEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFG----DELSLVTLFR- 231
Db        117 -VELTDNQLKVPSDGLYLIYSQVLFTGQGCPSTHVLLTHAISRFAVSYQTKVNLLSAIKS 175

Qy        232 -CIQNMPETLPNNSCYS----AGIAKLEEGDELQLAIPRENAQISLD----GDVTFFGAL 282
Db        176 PCQRETPEGAEAKPWYEPIYLGGVFQLEKGDRLSTEI---NLPAYLDFAESGQV-YFGII 231

Qy        283 KL 284
Db        232 AL 233


RESULT 3
QWMSN
tumor necrosis factor alpha precursor - mouse
N;Alternate names: cachectin; TNF alpha
C;Species: Mus musculus (house mouse)
C;Date: 31-Mar-1988 #sequence_revision 31-Mar-1988 #text_change 04-Feb-2000
C;Accession: A22908; S03791; A27303; A25164; A23127; A34251; I59058; A36696
R;Shirai, T.; Shimizu, N.; Shiojiri, S.; Horiguchi, S.; Ito, H.
DNA 7, 193-201, 1988
A;Title: Cloning and expression in Escherichia coli of the gene for mouse tumor necrosis
A;Reference number: A22908; MUID:88224564; PMID:2836146
A;Accession: A22908
A;Molecule type: DNA
A;Residues: 1-235 <SHI>
A;Cross-references: GB:M20155
R;Shakhov, A.N.; Nedospasov, S.A.
Bioorg. Khim. 13, 701-705, 1987
A;Title: Molecular cloning of the genes coding for tumor necrosis factors: complete nucle
A;Reference number: S03791; MUID:87298639; PMID:3040015
A;Accession: S03791
A;Molecule type: DNA
A;Residues: 1-235 <SHA>
A;Cross-references: GB:M38296; NID:g202086; PIDN:AAA40459.1; PID:g202087
A;Note: article in Russian with English abstract
R;Semon, D.; Kawashima, E.; Jongeneel, C.V.; Shakhov, A.N.; Nedospasov, S.A.
Nucleic Acids Res. 15, 9083-9084, 1987
A;Title: Nucleotide sequence of the murine TNF locus, including the TNF-alpha-(tumor nec
A;Reference number: A93679; MUID:88067722; PMID:3684584
A;Accession: A27303
A;Molecule type: DNA
A;Residues: 1-235 <SEM>
A;Cross-references: GB:Y00467; NID:g54830; PIDN:CAA68530.1; PID:g54832
R;Pennica, D.; Hayflick, J.S.; Bringman, T.S.; Palladino, M.A.; Goeddel, D.V.
Proc. Natl. Acad. Sci. U.S.A. 82, 6060-6064, 1985
A;Title: Cloning and expression in Escherichia coli of the cDNA for murine tumor necrosis
A;Reference number: A25164; MUID:85298296; PMID:3898078
A;Accession: A25164
A;Molecule type: mRNA
A;Residues: 1-235 <PEN>
A;Cross-references: GB:M11731; NID:g202084; PIDN:AAA40458.1; PID:g202085
R;Fransen, L.; Muller, R.; Marmenout, A.; Tavernier, J.; van der Heyden, J.; Kawashima, E
Nucleic Acids Res. 13, 4417-4429, 1985
A;Title: Molecular cloning of mouse tumour necrosis factor cDNA and its eukaryotic expres
A;Reference number: A23127; MUID:85242112; PMID:2989794
A;Accession: A23127
A;Molecule type: mRNA
A;Residues: 1-235 <FRA>
A;Cross-references: GB:X02611; NID:g54844; PIDN:CAA26457.1; PID:g54845
R;Cseh, K.; Beutler, B.
J. Biol. Chem. 264, 16256-16260, 1989
A;Title: Alternative cleavage of the cachectin/tumor necrosis factor propeptide results i
A;Reference number: A34251; MUID:89380231; PMID:2777790
A;Accession: A34251
A;Molecule type: protein
A;Residues: 70-87 <CSE>
R;Caput, D.; Beutler, B.; Hartog, K.; Thayer, R.; Brown-Shimer, S.L.; Cerami, A.
Proc. Natl. Acad. Sci. U.S.A. 83, 1670-1674, 1986
A;Title: Identification of a common nucleotide sequence in the 3'-untranslated region of
A;Reference number: I59058; MUID:86149365; PMID:2419912
A;Accession: I59058
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-230,'R',232-235 <RES>
A;Cross-references: GB:M13049; NID:g202082; PIDN:AAA40457.1; PID:g202083
R;Sherry, B.; Jue, D.M.; Zentella, A.; Cerami, A.
Biochem. Biophys. Res. Commun. 173, 1072-1078, 1990
A;Title: Characterization of high molecular weight glycosylated forms of murine tumor nec
A;Reference number: A36696; MUID:91097531; PMID:2268312
A;Accession: A36696
A;Molecule type: protein
A;Residues: 80-85,'X',87-99 <SHE>
C;Genetics:
A;Introns: 62/3; 81/1; 97/1
A;Note: the first intron occurs in the 5'-untranslated region
C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; lipoprotein; lymphokine; macrophage; membr
F;80-235/Product: tumor necrosis factor #status experimental <MAT>
F;20/Binding site: myristate (Lys) (covalent) #status predicted
F;84/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;86/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;148-179/Disulfide bonds: #status predicted

  Query Match             7.5%;  Score 109.5;  DB 1;  Length 235;
```

```
  Best Local Similarity   21.0%;  Pred. No. 0.069;
  Matches   51;  Conservative   48;  Mismatches   87;  Indels   57;  Gaps   11;

Qy         60 CLTVVSFYQVAALQGDLASLRAELQG-HHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPP 118
              ||:: ||  ||         |   : |    || | |       |  : | |  |:
Db         32 CLSLFSFLLVAGATTLFCLLNFGVIGPQRDEKFPNG-----LPLISSMAQTLTLR----- 81

Qy        119 APGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSAL 178
                :|||| :|          :: |: ::     :  |                 :
Db         82 -----SSSQNSSDKPVAHVVANHQVEEQLEWLSQRANALLANG---------------M 120

Qy        179 EEKENKILVKETGYFFIYGQVLYTDK----TYAMGHLIQRKKVHVFGDELSLVTLFR--C 232
              : |:|:::|   | : :| |||:  :     : | : |  :  : ::::|::  :  |
Db        121 DLKDNQLVVPADGLYLVYSQVLFKGQGCPDYVLLTHTVSRFAIS-YQEKVNLLSAVKSPC 179

Qy        233 IQNMPETLP----NNSCYSAGIAKLEEGDEL--QLAIPR-----ENAQISLDGDVTFFGA 281
               :: ||          |  |: :||:||:|  :: :|:      |: |:       :||
Db        180 PKDTPEGAELKPWYEPIYLGGVFQLEKGDQLSAEVNLPKYLDFAESGQV-------YFGV 232

Qy        282 LKL 284
              : |
Db        233 IAL 235


RESULT 4
S24642
tumor necrosis factor alpha precursor - bovine
C;Species: Bos primigenius taurus (cattle)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 04-Feb-2000
C;Accession: I46047; S24642
R;Cludts, I.; Cleuter, Y.; Kettmann, R.; Burny, A.; Droogmans, L.
Cytokine 5, 336-341, 1993
A;Title: Cloning and characterization of the tandemly arranged bovine lymphotoxin and tu
A;Reference number: I46046; MUID:94083525; PMID:8260599
A;Accession: I46047
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-233 <CL2>
A;Cross-references: EMBL:Z14137; NID:g796; PIDN:CAA78511.1; PID:g798
C;Genetics:
A;Gene: TNFA
A;Introns: 62/3; 78/1; 94/1
C;Superfamily: tumor necrosis factor
C;Keywords: glycoprotein; lipoprotein; myristylation; transmembrane protein
F;20/Binding site: myristate (Lys) (covalent) #status predicted
F;81/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;145-177/Disulfide bonds: #status predicted

  Query Match             7.4%;  Score 108;  DB 1;  Length 233;
  Best Local Similarity   22.8%;  Pred. No. 0.092;
  Matches   56;  Conservative   42;  Mismatches   88;  Indels   60;  Gaps   12;

Qy         58 SC-CLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFE 116
              || ||:: ||  ||         |   : |   |: | |           |:: :
Db         29 SCLCLSLFSFLLVAGATTLFCLLHFGVIGPQREESPGG----------PSINS------ 71

Qy        117 PPAPGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGS 176
              |      :||| | ||           ::||  :|   :   ::   |::  |
Db         72 PLVQTLRSSSQASSNKPVA----------HVVADINSPGQLRWWDSYANALMA--NGV 117

Qy        177 ALEEKENKILVKETGYFFIYGQVLYTDK-----TYAMGHLIQRKKVHVFGDELSLVTLFR 231
               ||  :|:::|   | : || |||:  :       : | | |  |  :  ::::::  :
Db        118 KLE--DNQLVVPADGLYLIYSQVLFRGQGCPSTPLFLTHTISRIAVS-YQTKVNILSAIK 174

Qy        232 --CIQNMPETLP----NNSCYSAGIAKLEEGDELQLAIPRENAQISL-------DGDVTF 278
                 | :  ||          |  |: :||:|| |       :|:|:|       :    :
Db        175 SPCHRETPEWAEAKPWYEPIYQGGVFQLEKGDRL-------SAEINLPDYLDYAESGQVY 227

Qy        279 FGALKL 284
              || : |
Db        228 FGIIAL 233


RESULT 5
I54490
tumor necrosis factor alpha precursor - white-footed mouse
C;Species: Peromyscus leucopus (white-footed mouse)
C;Date: 02-Aug-1996 #sequence_revision 02-Aug-1996 #text_change 04-Feb-2000
C;Accession: I54490
R;Crew, M.D.; Filipowsky, M.E.
Immunogenetics 35, 351-353, 1992
A;Title: Sequence of the tumor necrosis factor/cachectin (TNF) gene from Peromyscus leuc
A;Reference number: I54490; MUID:92218012; PMID:1348497
A;Accession: I54490
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-235 <RES>
A;Cross-references: GB:M59233; NID:g202506; PIDN:AAA40596.1; PID:g202507
C;Genetics:
A;Gene: PlTNF
A;Introns: 62/3; 81/1; 97/1
C;Superfamily: tumor necrosis factor
C;Keywords: glycoprotein; lipoprotein; myristylation
F;19,20/Binding site: myristate (Lys) (covalent) #status predicted
F;84/Binding site: carbohydrate (Ser) (covalent) #status predicted

  Query Match             7.4%;  Score 107.5;  DB 2;  Length 235;
  Best Local Similarity   22.0%;  Pred. No. 0.1;
  Matches   54;  Conservative   46;  Mismatches   84;  Indels   61;  Gaps   14;

Qy         60 CLTVVSFYQVAALQGDLASLRAELQG-HHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPP 118
              ||:: ||  ||         |   : |    || |      |  |   : | |  |:
Db         32 CLSLFSFLLVAGATTLFCLLNFGVIGPQREEKFP--NNLPIIG---SMAQTLTLR----- 81

Qy        119 APGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSAL 178
                :|||| :|          |                | :   : :|:   :          : :
Db         82 -----SSSQNSSDK--------PVAHVVANHQVDEQLEWLSRGANALL--------ANGM 120

Qy        179 EEKENKILVKETGYFFIYGQVLYTDK---TYA-MGHLIQRKKVHVFGDELSLVTLFRCIQ 234
              : |:|::::   | : :| |||:  :   :|  : | : |  |  : |:::|::  :
Db        121 DLKDNQLVIPADGLYLVYSQVLFKGQGCSSYVLLTHTVSRFAVS-YEDKVNLLSAIK--S 177

Qy        235 NMPETLPNNS--------CYSAGIAKLEEGDEL--QLAIPR-----ENAQISLDGDVTFF 279
                |:  | |          |  |: :||:|| |  :: :|:     |: |:       :|
Db        178 PCPKETPEGSELKPWYEPIYLGGVFQLEKGDRLSAEVNLPKYLDFAESGQV-------YF 230

Qy        280 GALKL 284
              | : |
Db        231 GVIAL 235


RESULT 6
S06192
tumor necrosis factor alpha precursor - goat (fragment)
N;Alternate names: cachectin; TNF alpha
C;Species: Capra aegagrus hircus (domestic goat)
C;Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #text_change 31-Jan-2000
C;Accession: S06192; S41867
R;Goldstein, I.M.; Henner, D.; Talhouk, A.
submitted to the EMBL Data Library, March 1989
A;Reference number: S06192
A;Accession: S06192
A;Molecule type: mRNA
A;Residues: 1-193 <GOL>
A;Cross-references: EMBL:X14828; NID:g992; PIDN:CAA32937.1; PID:g993
R;Rimstad, E.
submitted to the EMBL Data Library, January 1994
A;Reference number: S41867
A;Accession: S41867
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 36-38,'S',40-78,'A',80-88,'N',90-114,'Q',116-123,'D',125-144,'G',145-173,'L',
A;Cross-references: EMBL:X77317; NID:g452607; PIDN:CAA54523.1; PID:g452608
C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; lymphokine; macrophage; membrane protein
F;42/Binding site: carbohydrate (Ser) (covalent) #status predicted
```

```
F;106-138/Disulfide bonds: #status predicted

  Query Match             7.4%;  Score 107;  DB 2;  Length 193;
  Best Local Similarity   23.4%;  Pred. No. 0.089;
  Matches   50;  Conservative   36;  Mismatches   92;  Indels   36;  Gaps   10;

Qy         84 QGHHAEKLPA---GAGAPKAGLEEAPAVTAGLKIFEPPAPGEGNSSQNSRNKRAVQGPEE 140
              : |||  |||    |   |:   |::|   ||      |       :||| | ||
Db          3 RSHHA-LLPAALRGNRPPEE--EQSP---AGPSFNRPLVQTLRSSSQASSNKPVA----- 51

Qy        141 TVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEEKENKILVKETGYFFIYGQVL 200
                 ::|:   |    |   :     :  : : :| |:|:::|   | : || |||
Db         52 -------HVVANISAP----GQLRWGDSYANALKANGVELKDNQLVVPTDGLYLIYSQVL 100

Qy        201 Y-----TDKTYAMGHLIQRKKVHVFGDELSLVTLFR--CIQNMPETLPN---NSCYSAGI 250
              :           : | | |  |  :  ::::::  :  | :  ||          |  |:
Db        101 FRGHGCPSTPLFLTHTISRIAVS-YQTKVNILSAIKSPCHRETPEAEAKPWYEPIYQGGV 159

Qy        251 AKLEEGDELQLAIPRENAQISLDGDVTFFGALKL 284
               :||:|| |   | :       :    :|| : |
Db        160 FQLEKGDRLSAEINQPEYLDYAESGQVYFGIIAL 193


RESULT 7
S12606
tumor necrosis factor alpha precursor - pig
C;Species: Sus scrofa domestica (domestic pig)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 04-Feb-2000
C;Accession: S12606; S17290; S18965; I46659
R;Drews, R.T.; Coffee, B.W.; Prestwood, A.K.; McGraw, R.A.
Nucleic Acids Res. 18, 5564, 1990
A;Title: Gene sequence of porcine tumor necrosis factor alpha.
A;Reference number: S12606; MUID:91016861; PMID:2216741
A;Accession: S12606
A;Molecule type: DNA
A;Residues: 1-232 <DRE>
A;Cross-references: EMBL:X54001; NID:g2135; PIDN:CAA37949.1; PID:g2136
R;Kuhnert, P.; Wuethrich, C.; Peterhans, E.; Pauli, U.
Gene 102, 171-178, 1991
A;Title: The porcine tumor necrosis factor-encoding genes: sequence and comparative anal
A;Reference number: S17289; MUID:91340150; PMID:1874444
A;Accession: S17290
A;Molecule type: DNA
A;Residues: 1-232 <KUH>
A;Cross-references: EMBL:X54859; NID:g2132; PIDN:CAA38639.1; PID:g2134
A;Note: the authors translated the codon GAG for residue 202 as Gly
R;Choi, C.S.; Molitor, T.W.; Lin, G.F.; Murtaugh, M.P.
submitted to the EMBL Data Library, January 1991
A;Description: Complete nucleotide sequence of a cDNA encoding porcine tumor necrosis fa
A;Reference number: S18965
A;Accession: S18965
A;Molecule type: mRNA
A;Residues: 1-232 <CHO>
A;Cross-references: EMBL:X57321; NID:g2137; PIDN:CAA40591.1; PID:g2138
R;Pauli, U.; Beutler, B.; Peterhans, E.
Gene 81, 185-191, 1989
A;Title: Porcine tumor necrosis factor alpha: Cloning with the polymerase chain reaction
A;Reference number: I46659; MUID:90034181; PMID:2478420
A;Accession: I46659
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 44-232 <PAU>
A;Cross-references: GB:M29079; NID:g164694; PIDN:AAA31128.1; PID:g164695
C;Genetics:
A;Introns: 62/3; 78/1; 93/1
C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; lipoprotein; lymphokine; macrophage; myri
F;1-77/Domain: propeptide #status predicted <PRO>
F;78-232/Product: tumor necrosis factor alpha #status predicted <MAT>
F;19,20/Binding site: myristate (Lys) (covalent) #status predicted
F;81/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;144-176/Disulfide bonds: #status predicted

  Query Match             7.4%;  Score 107;  DB 1;  Length 232;
  Best Local Similarity   22.0%;  Pred. No. 0.11;
  Matches   54;  Conservative   40;  Mismatches   86;  Indels   66;  Gaps   11;

Qy         60 CLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPA 119
              ||:: ||  ||         |  |: |   |: |||                  | |  | |
Db         32 CLSLFSFLLVAGATTLFCLLHFEVIGPQKEEFPAGP---------------LSI-NPLA 74

Qy        120 PGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKR---GS 176
              |  :||| |         :: |    : |: :         : |   :      :
Db         75 QGLRSSSQTS---------DKPVAHVVANVKAEGQ----------LQWQSGYANALLAN 114

Qy        177 ALEEKENKILVKETGYFFIYGQVLYTDK-----TYAMGHLIQRKKVHVFGDELSLVTLFR 231
              :: |:|:::|   | : || |||:  :       : | | |  |  :  :::|::  :
Db        115 GVKLKDNQLVVPTDGLYLIYSQVLFRGQGCPSTNVFLTHTISRIAVS-YQTKVNLLSAIK 173

Qy        232 --CIQNMPETLPNNSCYS----AGIAKLEEGDELQLAIPRENAQISL-------DGDVTF 278
               | :. ||          |      |: :||: | |       :|:|:|       :    :
Db        174 SPCQRETPEGAEAKPWYEPIYLGGVFQLEKDDRL------SAEINLPDYLDFAESGQVY 226

Qy        279 FGALKL 284
              || : |
Db        227 FGIIAL 232


RESULT 8
JH0529
tumor necrosis factor alpha precursor - sheep
N;Alternate names: cachectin; TNF alpha
C;Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 04-Feb-2000
C;Accession: JH0529; S48118; S13114; S20661
R;Green, I.R.; Sargan, D.R.
Gene 109, 203-210, 1991
A;Title: Sequence of the cDNA encoding ovine tumor necrosis factor-alpha: problems with c
A;Reference number: JH0529; MUID:92112044; PMID:1765267
A;Accession: JH0529
A;Molecule type: mRNA
A;Residues: 1-234 <GRE>
A;Cross-references: EMBL:X55152; NID:g1405; PIDN:CAA38952.1; PID:g1406
A;Experimental source: alveolar macrophage
R;Nash, A.D.; Barcham, G.J.; Brandon, M.R.; Andrews, A.E.
Immunol. Cell Biol. 69, 273-283, 1991
A;Title: Molecular cloning, expression and characterization of ovine TNF-alpha.
A;Reference number: S48118; MUID:92155784; PMID:1786996
A;Accession: S48118
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-234 <NAS>
A;Cross-references: EMBL:X56756; NID:g297806; PIDN:CAA40076.1; PID:g297807
R;Young, A.J.; Hay, J.B.; Chan, J.Y.C.
Nucleic Acids Res. 18, 6723, 1990
A;Title: Primary structure of ovine tumor necrosis factor alpha cDNA.
A;Reference number: S13114; MUID:91067496; PMID:2251151
A;Accession: S13114
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-62,64-234 <YOU>
A;Cross-references: EMBL:X55966; NID:g1403; PIDN:CAA39437.1; PID:g1404
A;Note: comparison with the introns of homologous sequences suggest that this is probably
C;Superfamily: tumor necrosis factor
C;Keywords: alternative splicing; cytokine; cytotoxin; glycoprotein; lipoprotein; lymphok
F;1-77/Domain: propeptide #status predicted <PRO>
F;78-234/Product: tumor necrosis factor alpha #status predicted <TUM>
F;20/Binding site: myristate (Lys) (covalent) #status predicted
F;82/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;96/Binding site: carbohydrate (Asn) (covalent) #status predicted
F;146-178/Disulfide bonds: #status predicted

  Query Match             7.1%;  Score 102.5;  DB 1;  Length 234;
  Best Local Similarity   22.5%;  Pred. No. 0.28;
  Matches   56;  Conservative   41;  Mismatches   87;  Indels   65;  Gaps   12;
```

```
Qy          58 SC-CLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFE 116
Db          29 SCWCLSLFSFLLVAGATTLFCLLHFGVIGPQRE------------EQSP---AGPSFNR 72

Qy         117 PPAPGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGS 176
Db          73 PLVQTLRSSSQASNNKPVA------------HVVANISAPGQLRWGDSYANALMA----N 116

Qy         177 ALEEKENKILVKETGYFFIYGQVLY-----TDKTYAMGHLIQRKKVHVFGDELSLVTLFR 231
Db         117 GVELKDNQLVVPTDGLYLIYSQVLFRGHGCPSTPLFLTHTISRIAVS-YQTKVNILSAIK 175

Qy         232 --CIQNMPETLPN-------NSCYSAGIAKLEEGDELQLAIPRENAQISL-------DGD 275
Db         176 SPCHR---ETLEGAEAKPWYEPIYQGGVFQLEKGDRL-------SAEINLPEYLDYAESG 225

Qy         276 VTFFGALKL 284
Db         226 QVYFGIIAL 234
```

RESULT 9
QWHUX
lymphotoxin alpha precursor - human
N;Alternate names: lymphotoxin A; TNF beta; tumor necrosis factor beta (TNF beta)
C;Species: Homo sapiens (man)
C;Date: 28-Aug-1985 #sequence_revision 07-Jul-1995 #text_change 16-Jun-2000
C;Accession: A92755; S36154; I54482; A93350; B32877; A91906; A61478; S26951; A01645; A23
R;Nedwin, G.E.; Jarrett-Nedwin, J.; Smith, D.H.; Naylor, S.L.; Sakaguchi, A.Y.; Goeddel,
J. Cell. Biochem. 29, 171-181, 1985
A;Title: Structure and chromosomal localization of the human lymphotoxin gene.
A;Reference number: A92755; MUID:86086150; PMID:3001109
A;Accession: A92755
A;Molecule type: DNA
A;Residues: 1-59,'N',61-205 <NED>
R;Iris, F.J.M.; Bougueleret, L.; Prieur, S.; Caterina, D.; Primas, G.; Perrot, V.; Jurka
Nature Genet. 3, 137-145, 1993
A;Title: Dense Alu clustering and a potential new member of the NFkappaB family within a
A;Reference number: S36152; MUID:93272029; PMID:8499947
A;Accession: S36154
A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-12,'R',14-205 <IRI>
A;Cross-references: EMBL:Z15026; NID:g37211; PIDN:CAA78746.1; PID:g37213
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, August 1992
R;Abraham, L.J.; Du, D.C.; Zahedi, K.; Dawkins, R.L.; Whitehead, A.S.
Immunogenetics 33, 50-53, 1991
A;Title: Haplotypic polymorphisms of the TNFB gene.
A;Reference number: I54482; MUID:91139175; PMID:1671667
A;Accession: I54482
A;Status: translation not shown; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-124,'P',126-205 <RES>
A;Cross-references: GB:M55913; NID:g339742; PIDN:AAB59455.1; PID:g339743
A;Experimental source: ancestral haplotype 57.1
A;Note: 59-Asn was also found (ancestral haplotype 8.1)
R;Gray, P.W.; Aggarwal, B.B.; Benton, C.V.; Bringman, T.S.; Henzel, W.J.; Jarrett, J.A.;
Nature 312, 721-724, 1984
A;Title: Cloning and expression of cDNA for human lymphotoxin, a lymphokine with tumour
A;Reference number: A93350; MUID:85086243; PMID:6334807
A;Accession: A93350
A;Molecule type: mRNA
A;Residues: 1-205 <GRA>
A;Cross-references: GB:X01393; NID:g34444; PIDN:CAA25649.1; PID:g34445
A;Experimental source: lymphoblastoid cell line RPMI-1788
R;Goeddel, D.V.; Aggarwal, B.B.; Gray, P.W.; Leung, D.W.; Nedwin, G.E.; Palladino, M.A.;
Cold Spring Harb. Symp. Quant. Biol. 51, 597-609, 1986
A;Title: Tumor necrosis factors: gene structure and biological activities.
A;Reference number: A32877; MUID:87217059; PMID:3472740
A;Accession: B32877
A;Status: preliminary; not compared with conceptual translation
A;Molecule type: mRNA
A;Residues: 35-205 <GOE>
R;Kobayashi, Y.; Miyamoto, D.; Asada, M.; Obinata, M.; Osawa, T.
J. Biochem. 100, 727-733, 1986
A;Title: Cloning and expression of human lymphotoxin mRNA derived from a human T cell hyb
A;Reference number: A91906; MUID:87057135; PMID:3536896
A;Accession: A91906
A;Molecule type: mRNA
A;Residues: 1-59,'N',61-205 <KOB>
A;Cross-references: GB:D00102; NID:g219913; PIDN:BAA00064.1; PID:g219914
A;Note: the authors translated the codon TAT for residue 156 as Thr and ACC for residue 1
R;Fukuda, S.; Ando, S.; Sanou, O.; Taniai, M.; Fujii, M.; Masaki, N.; Nakamura, K.I.; And
Lymphokine Res. 7, 175-185, 1988
A;Title: Simultaneous production of natural human tumor necrosis factor-alpha, -beta and
A;Reference number: A61478; MUID:88301617; PMID:2841543
A;Accession: A61478
A;Molecule type: protein
A;Residues: 56-79;86-95,'X',97,'X',99;119-151,'XX',154-162,'X',164,'X',166,'X',168,'X',17
R;Voigt, C.G.; Maurer-Fogy, I.; Adolf, G.R.
FEBS Lett. 314, 85-88, 1992
A;Title: Natural human tumor necrosis factor beta (lymphotoxin). Variable O-glycosylation
A;Reference number: S26951; MUID:93083656; PMID:1451807
A;Accession: S26951
A;Molecule type: protein
A;Residues: 35-59,'N',61-205 <VOI>
A;Note: 60-Thr was also found
R;Fukushima, K.; Watanabe, H.; Takeo, K.; Nomura, M.; Asahi, T.; Yamashita, K.
Arch. Biochem. Biophys. 304, 144-153, 1993
A;Title: N-linked sugar chain structure of recombinant human lymphotoxin produced by CHO
A;Reference number: S34742; MUID:93311995; PMID:8323280
A;Contents: annotation
C;Comment: Secreted from mitogen-activated lymphocytes within 1-2 days after induction, t
while having no detrimental effect on normal cells. It can also act synergistically with
C;Comment: This protein and TNF-alpha (tumor necrosis factor) are the products of differe
ical activities but are produced by different cell types and have different induction kir
C;Genetics:
A;Gene: GDB:LTA; LT; TNFB
A;Cross-references: GDB:120442; OMIM:153440
A;Map position: 6p21.3-6p21.3
A;Introns: 33/3; 69/1
A;Note: the first intron occurs before the initiator codon
C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; homotrimer; lymphokine; macrophage
F;1-34/Domain: signal sequence #status predicted <SIG>
F;35-205/Product: lymphotoxin #status predicted <MAT>
F;41/Binding site: carbohydrate (Thr) (covalent) (partial) #status experimental
F;96/Binding site: carbohydrate (Asn) (covalent) #status experimental

Query Match 6.9%; Score 100.5; DB 1; Length 205;
Best Local Similarity 23.6%; Pred. No. 0.35;
Matches 51; Conservative 20; Mismatches 84; Indels 61; Gaps 9;

```
Qy          91 LPAGAGAPKAGLEEAPAVTA--------GLKIFEPPAPGEGN-SSQNSRNKRAVQGPEET 141
Db          29 LPGAQGLPGVGLTPSAAQTARQHPKMHLAHSTLKPAAHLIGDPSKQNSLLWRA--NTDRA 86

Qy         142 VTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEEKENKILVKETGYFFIYGQVLY 201
Db          87 FLQDGFSL------------------------------SNNSLLVPTSGIYFVYSQVVF 115

Qy         202 TDKTYA----MGHLIQRKKVHVFGDELSLVTLFRCIQNMPETLPN------NSCYSAGIA 251
Db         116 SGKAYSPKATSSPLYLAHEVQLFSSQYPFHVPLLSSQKM--VYPGLQEPWLHSMYHGAAF 173

Qy         252 KLEEGDELQL---AIPRENAQISLDGDVTFFGALKL 284
Db         174 QLTQGDQLSTHTDGIP----HLVLSPSTVFFGAFAL 205
```

RESULT 10
QWHUN
tumor necrosis factor alpha precursor [validated] - human
N;Alternate names: cachectin; TNFA
C;Species: Homo sapiens (man)
C;Date: 28-Aug-1985 #sequence_revision 28-Aug-1985 #text_change 08-Dec-2000

C;Accession: A93585; S36153; A93351; A44189; B61478; I53311; S62610; I54522; A01646; B23
R;Nedwin, G.E.; Naylor, S.L.; Sakaguchi, A.Y.; Smith, D.; Jarrett-Nedwin, J.; Pennica, D
Nucleic Acids Res. 13, 6361-6373, 1985
A;Title: Human lymphotoxin and tumor necrosis factor genes: structure, homology and chro
A;Reference number: A93585; MUID:86016093; PMID:2995927
A;Accession: A93585
A;Molecule type: DNA
A;Residues: 1-233 <NED>
A;Cross-references: GB:X02910; GB:X02159; NID:g37209; PIDN:CAA26669.1; PID:g37210
R;Iris, F.J.M.; Bougueleret, L.; Prieur, S.; Caterina, D.; Primas, G.; Perrot, V.; Jurka
Nature Genet. 3, 137-145, 1993
A;Title: Dense Alu clustering and a potential new member of the NFkappaB family within a
A;Reference number: S36152; MUID:93272029; PMID:8499947
A;Accession: S36153
A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-233 <IRI>
A;Cross-references: EMBL:Z15026; NID:g37211; PIDN:CAA78745.1; PID:g37212
A;Note: the nucleotide sequence was submitted to the EMBL Data Library, August 1992
R;Pennica, D.; Nedwin, G.E.; Hayflick, J.S.; Seeburg, P.H.; Derynck, R.; Palladino, M.A.
Nature 312, 724-729, 1984
A;Title: Human tumour necrosis factor: precursor structure, expression and homology to l
A;Reference number: A93351; MUID:85086244; PMID:6392892
A;Accession: A93351
A;Molecule type: mRNA
A;Residues: 1-233 <PEN>
A;Cross-references: GB:X02910; GB:X02159; NID:g37209; PIDN:CAA26669.1; PID:g37210
A;Note: this protein was isolated from the monocyte-like cell line HL-60 from a promyelo
R;Wang, A.M.; Creasey, A.A.; Ladner, M.B.; Lin, L.S.; Strickler, J.; Van Arsdell, J.N.;
Science 228, 149-154, 1985
A;Title: Molecular cloning of the complementary DNA for human tumor necrosis factor.
A;Reference number: A44189; MUID:85142190; PMID:3856324
A;Accession: A44189
A;Molecule type: mRNA
A;Residues: 1-62,'S',64-233 <WAN>
A;Cross-references: GB:M10988; NID:g339737; PIDN:AAA61198.1; PID:g339738
R;Fukuda, S.; Ando, S.; Sanou, O.; Taniai, M.; Fujii, M.; Masaki, N.; Nakamura, K.I.; An
Lymphokine Res. 7, 175-185, 1988
A;Title: Simultaneous production of natural human tumor necrosis factor-alpha, -beta and
A;Reference number: A61478; MUID:88301617; PMID:2841543
A;Accession: B61478
A;Molecule type: protein
A;Residues: 83-102;109-119;121-128,'X',130-131;142-144,'X',146,'XXX',150-152;159-174;180
R;Marmenout, A.; Fransen, L.; Tavernier, J.; Van Der Heyden, J.; Tizard, R.; Kawashima,
Eur. J. Biochem. 152, 515-522, 1985
A;Title: Molecular cloning and expression of human tumor necrosis factor and comparison
A;Reference number: I53311; MUID:86030296; PMID:3932069
A;Accession: I53311
A;Status: translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-233 <MAR>
A;Cross-references: GB:M26331; NID:g339763; PIDN:AAA36758.1; PID:g339764
A;Experimental source: U-937 cells
R;Takakura-Yamamoto, R.; Yamamoto, S.; Fukuda, S.; Kurimoto, M.
Eur. J. Biochem. 235, 431-437, 1996
A;Title: O-Glycosylated species of natural human tumor-necrosis factor-alpha.
A;Reference number: S62610; MUID:96202967; PMID:8631363
A;Accession: S62610
A;Molecule type: protein
A;Residues: 77-99 <TAK>
R;D'Alfonso, S.; Richiardi, P.M.
Immunogenetics 39, 150-154, 1994
A;Title: A polymorphic variation in a putative regulation box of the TNFA promoter regio
A;Reference number: I54522; MUID:94102809; PMID:7903959
A;Accession: I54522
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-8 <DAL>
A;Cross-references: GB:S68530; NID:g544751
R;Stevenson, F.T.; Bursten, S.L.; Locksley, R.M.; Lovett, D.H.
J. Exp. Med. 176, 1053-1062, 1992
A;Title: Myristyl acylation of the tumor necrosis factor alpha precursor on specific lys
A;Reference number: A59163; MUID:93018820; PMID:1402651
A;Contents: annotation; identification of myristylated lysines
R;Aggarwal, B.B.; Kohr, W.J.; Hass, P.E.; Moffat, B.; Spencer, S.A.; Henzel, W.J.; Bringm
J. Biol. Chem. 260, 2345-2354, 1985
A;Title: Human tumor necrosis factor. Production, purification, and characterization.
A;Reference number: A92511; MUID:85130974; PMID:3871770
A;Contents: annotation; disulfide bond
C;Comment: Secreted from mitogen-activated macrophages within 4-24 hours after induction,
out detriment to normal cells. It can also act synergistically with interferon gamma to
C;Comment: TNF-alpha and -beta (lymphotoxin) are the products of different genes closely
ut are produced by different cell types and have different induction kinetics.
C;Genetics:
A;Gene: GDB:TNF; TNFA
A;Cross-references: GDB:120441; OMIM:191160
A;Map position: 6p21.3-6p21.3
A;Introns: 62/3; 78/1; 94/1
C;Complex: homotrimer
C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; homotrimer; lipoprotein; lymphokine; macro
F;1-76/Domain: propeptide #status predicted <PRO>
F;77-233/Product: tumor necrosis factor #status experimental <MAT>
F;19,20/Binding site: myristate (Lys) (covalent) #status experimental
F;81/Binding site: carbohydrate (Ser) (covalent) (partial) #status experimental
F;145-177/Disulfide bonds: #status experimental

Query Match 6.8%; Score 98.5; DB 1; Length 233;
Best Local Similarity 24.2%; Pred. No. 0.61;
Matches 44; Conservative 34; Mismatches 69; Indels 35; Gaps 9;

```
Qy      135 VQGPEETVTQDCLQLI--------ADSETPTIQKGSYTF--------VPWLLSFKRGSAL 178
            | ||:       | ||        : | ||: :  ::          : ||   :| :||
Db       55 VIGPQREEFPRDLSLISPLAQAVRSSSRTPSDKPVAHVVANPQAEGQLQWL--NRRANAL 112

Qy      179 -----EEKENKILVKETGYFFIYGQVLYTDK----TYA-MGHLIQRKKVHVFGDELSLVT 228
                | ::|:::|   | : || |||:  :    |:  : | | |  |  :  :::|::
Db      113 LANGVELRDNQLVVPSEGLYLIYSQVLFKGQGCPSTHVLLTHTISRIAVS-YQTKVNLLS 171

Qy      229 LFR--CIQNMPETLPNNSCYS----AGIAKLEEGDELQLAIPRENAQISLDGDVTFFGAL 282
              :  | :  ||       |       |: :||:|| |   | | :   :    :|| :
Db      172 AIKSPCQRETPEGAEAKPWYEPIYLGGVFQLEKGDRLSAEINRPDYLDFAESGQVYFGII 231

Qy      283 KL 284
            ||
Db      232 AL 233
```

RESULT 11
A25451
tumor necrosis factor alpha precursor - rabbit
N;Alternate names: cachectin; TNF alpha
C;Species: Oryctolagus cuniculus (domestic rabbit)
C;Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 04-Feb-2000
C;Accession: A25454; A25451; JS0727
R;Ito, H.; Yamamoto, S.; Kuroda, S.; Sakamoto, H.; Kajihara, J.; Kiyota, T.; Hayashi, H.;
DNA 5, 149-156, 1986
A;Title: Molecular cloning and expression in Escherichia coli of the cDNA coding for rabb
A;Reference number: A25454; MUID:86219711; PMID:3519137
A;Accession: A25454
A;Molecule type: mRNA
A;Residues: 1-234 <ITO>
A;Cross-references: GB:M12845; NID:g165759; PIDN:AAA31486.1; PID:g165760
R;Ito, H.; Shirai, T.; Yamamoto, S.; Akira, M.; Kawahara, S.; Todd, C.W.; Wallace, R.B.
DNA 5, 157-165, 1986
A;Title: Molecular cloning of the gene encoding rabbit tumor necrosis factor.
A;Reference number: A25451; MUID:86219712; PMID:3519138
A;Accession: A25451
A;Molecule type: DNA
A;Residues: 1-234 <IT2>
A;Note: this sequence differs from that shown in having a Gln inserted between residues
R;Shakhov, A.N.; Kuprash, D.V.; Azizov, M.M.; Jongeneel, C.V.; Nedospasov, S.A.
Gene 95, 215-221, 1990
A;Title: Structural analysis of the rabbit TNF locus, containing the genes encoding TNF-
A;Reference number: JH0309; MUID:91065534; PMID:2249779
A;Accession: JS0727

```
A;Status: nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-62,'Q',63-234 <SHA>
A;Cross-references: GB:M60340; GB:M35326; NID:g165754; PIDN:AAA31484.1; PID:g165756
C;Genetics:
A;Introns: 62/3; 80/1; 96/1
C;Superfamily: tumor necrosis factor
C;Keywords: cytokine; cytotoxin; glycoprotein; lipoprotein; lymphokine; macrophage; memb
F;1-81/Domain: propeptide #status predicted <PRO>
F;82-234/Product: tumor necrosis factor #status predicted <MAT>
F;19,20/Binding site: myristate (Lys) (covalent) #status predicted
F;83/Binding site: carbohydrate (Ser) (covalent) #status predicted
F;147-178/Disulfide bonds: #status predicted

  Query Match             6.8%;  Score 98;  DB 1;  Length 234;
  Best Local Similarity   21.2%;  Pred. No. 0.67;
  Matches   49;  Conservative   46;  Mismatches   72;  Indels   64;  Gaps   13;

Qy        112 LKIFEPPAPGEGNSSQNSRNKRA----------------------VQGPEETVTQDCL 147
              ::: | | | :    | |  ||                      | ||:|  : : |
Db         10 VELAEGPLPKKAGGPQGS--KRCLCLSLFSFLLVAGATTLFCLLHFRVIGPQEEESPNNL 67

Qy        148 QLIAD-SETPTIQKGSYTF----------------VPWLLSFKRGSAL-----EEKENK 184
               |:   ::  |::  |                  : ||   :| :||     :  :|:
Db         68 HLVNPVAQMVTLRSASRALSDKPLAHVVANPQVEGQLQWL--SQRANALLANGMKLTDNQ 125

Qy        185 ILVKETGYFFIYGQVLYTD---KTYA-MGHLIQRKKVHVFGDELSLVTLFR--CIQNMPE 238
              ::|   | : || |||::    ::|  : | : |   | : :::|::  :  | :  ||
Db        126 LVVPADGLYLIYSQVLFSGQGCRSYVLLTHTVSRFAVS-YPNKVNLLSAIKSPCHRETPE 184

Qy        239 TLPNNSCYS----AGIAKLEEGDELQLAIPR-ENAQISLDGDVTFFGALKL 284
                  : |      |: :||:|| |   : : |   ::  | | :|| : |
Db        185 EAEPMAWYEPIYLGGVFQLEKGDRLSTEVNQPEYLDLAESGQV-YFGIIAL 234


RESULT 12
A82993
hypothetical protein PA5225 [imported] - Pseudomonas aeruginosa (strain PAO1)
C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep-2000 #sequence_revision 15-Sep-2000 #text_change 31-Dec-2000
C;Accession: A82993
R;Stover, C.K.; Pham, X.Q.; Erwin, A.L.; Mizoguchi, S.D.; Warrener, P.; Hickey, M.J.; Br
adman, S.; Yuan, Y.; Brody, L.L.; Coulter, S.N.; Folger, K.R.; Kas, A.; Larbig, K.; Lim,
.; Lory, S.; Olson, M.V.
Nature 406, 959-964, 2000
A;Title: Complete genome sequence of Pseudomonas aeruginosa PA01, an opportunistic patho
A;Reference number: A82950; MUID:20437337; PMID:10984043
A;Accession: A82993
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-184 <STO>
A;Cross-references: GB:AE004935; GB:AE004091; NID:g9951526; PIDN:AAG08610.1; GSPDB:GN001
A;Experimental source: strain PAO1
C;Genetics:
A;Gene: PA5225

  Query Match             6.7%;  Score 97.5;  DB 2;  Length 184;
  Best Local Similarity   31.2%;  Pred. No. 0.55;
  Matches   35;  Conservative   11;  Mismatches   45;  Indels   21;  Gaps    4;

Qy         81 AELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAPGEGNSSQNSRNKRAVQGPEE 140
              ||| ||   :: ||||  :|  : | |   |          ||||      | | |:|
Db         25 AELHGHLLGRVCAGAGFDEAAWQHAAAELLG------GAPGE-------RLKAALSGLLG 71

Qy        141 TVTQD-------CLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEEKENKI 185
              | ||         : |: | |||   |: :      |   |  |   | :|  :
Db         72 MVRQDFSAGEVAVVMLLPDDETPLAQR-TEALGQWCQGFLAGFGLTAREGSL 122


RESULT 13
I38707
Fas ligand - human
C;Species: Homo sapiens (man)
C;Date: 29-May-1998 #sequence_revision 29-May-1998 #text_change 21-Jul-2000
C;Accession: I38707; JC2340; S57565; I38554
R;Takahashi, T.; Tanaka, M.; Inazawa, J.; Abe, T.; Suda, T.; Nagata, S.
Int. Immunol. 6, 1567-1574, 1994
A;Title: Human Fas ligand: gene structure, chromosomal location and species specificity.
A;Reference number: I38707; MUID:95127560; PMID:7826947
A;Accession: I38707
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-281 <RES>
A;Cross-references: EMBL:U11821; NID:g595430; PIDN:AAC50124.1; PID:g595431
R;Mita, E.; Hayashi, N.; Iio, S.; Takehara, T.; Hijioka, T.; Kasahara, A.; Fusamoto, H.;
Biochem. Biophys. Res. Commun. 204, 468-474, 1994
A;Title: Role of Fas ligand in apoptosis induced by hepatitis C virus infection.
A;Reference number: JC2340; MUID:95071350; PMID:7980502
A;Accession: JC2340
A;Molecule type: DNA
A;Residues: 1-281 <MIT>
A;Cross-references: GB:D38122; DDBJ:D29820; NID:g601892; PIDN:BAA07320.1; PID:g1369902
R;Schatzlein, C.E.
submitted to the EMBL Data Library, June 1995
A;Reference number: S57565
A;Accession: S57565
A;Status: preliminary
A;Molecule type: mRNA
A;Residues: 1-281 <SCH>
A;Cross-references: EMBL:X89102; NID:g887455; PID:g887456
R;Alderson, M.R.; Tough, T.W.; Davis-Smith, T.; Braddy, S.; Falk, B.; Schooley, K.A.; Goo
J. Exp. Med. 181, 71-77, 1995
A;Title: Fas ligand mediates activation-induced cell death in human T lymphocytes.
A;Reference number: I38554; MUID:95105731; PMID:7528780
A;Accession: I38554
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
A;Residues: 1-281 <RE2>
A;Cross-references: EMBL:U08137; NID:g624627; PIDN:AAC50071.1; PID:g624628
C;Genetics:
A;Gene: FasL
A;Introns: 151/1; 116/3
C;Keywords: glycoprotein; transmembrane protein
F;80-102/Domain: transmembrane #status predicted <TMM>
F;76,184,250,260/Binding site: carbohydrate (Asn) (covalent) #status predicted

  Query Match             6.7%;  Score 97.5;  DB 2;  Length 281;
  Best Local Similarity   20.7%;  Pred. No. 0.93;
  Matches   56;  Conservative   39;  Mismatches  107;  Indels   69;  Gaps   10;

Qy         31 LPRKESPSVR---SSKDGKLLAATLLLALLSCCLTVVSFYQVAALQGDLASLR-AELQGH 86
              ||     | ::   :   |  |     : |::  .  :  :|:  || :|| || :  | |
Db         63 LPPLPLPPLKKRGNHSTGLCLLVMFFMVLVALVGLGLGMFQLFHLQKELAELRESTSQMH 122

Qy         87 HAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAPGEGNSSQNSRNKRAVQGPEETVTQDC 146
               |  |     | |                    ||                    ||:   :
Db        123 TASSLEKQIGHP----------------SPP------------------PEKKELRKV 146

Qy        147 LQLIADSET---PTIQKGSYTFVPWLLSFKRGSALEEKENKILVKETGYFFIYGQVLY-- 201
                  |  :   |  : :|  |  ||      | :: |:  ::: ||| :|:|  :| :
Db        147 AHLTGKSNSRSMPLEWEDTYGIV--LL-----SGVKYKKGGLVINETGLYFVYSKVYFRG 199

Qy        202 --------TDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETLPNNSCYSAGIAKL 253
                    : | |       :  | : |  :|  |  :          :  | |  :  |
Db        200 QSCNNLPLSHKVYMRNSKYPQDLVMMEGKMMSYCTTGQ--------MWARSSYLGAVFNL 251

Qy        254 EEGDELQLAIPRENAQISLDGDVTFFGALKL 284
                  | | : :  | : :: :   ||||  ||
Db        252 TSADHLYVNV-SELSLVNFEESQTFFGLYKL 281


RESULT 14
A75537
hypothetical protein - Deinococcus radiodurans (strain R1)
C;Species: Deinococcus radiodurans
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 17-Mar-2000
```

```
C;Accession: A75537
R;White, O.; Eisen, J.A.; Heidelberg, J.F.; Hickey, E.K.; Peterson, J.D.; Dodson, R.J.;
, M.; Shen, M.; Vamathevan, J.J.; Lam, P.; McDonald, L.; Utterback, T.; Zalewski, C.; Ma
S.; Smith, H.O.; Venter, J.C.; Fraser, C.M.
Science 286, 1571-1577, 1999
A;Title: Genome sequence of the radioresistant bacterium Deinococcus radiodurans R1.
A;Reference number: A75250; MUID:20036896; PMID:10567266
A;Accession: A75537
A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-347 <WHI>
A;Cross-references: GB:AE001890; GB:AE000513; NID:g6457959; PIDN:AAF09880.1; PID:g645797
A;Experimental source: strain R1
C;Genetics:
A;Gene: DR0288
A;Map position: 1

  Query Match             6.5%;  Score 94.5;  DB 2;  Length 347;
  Best Local Similarity   27.4%;  Pred. No. 2.2;
  Matches   37;  Conservative   23;  Mismatches   52;  Indels   23;  Gaps    5;

Qy          9 QSRLTSCLKKRE---EMKLKECVSILPRKESP-----SVRSSKDGKLLAATLLLALLSCC 60
              |::  : |: ||    :  |: : :|| : :|     :  ||: || :::  |  | :
Db         99 QNQFRAALRAREGERTLNAKQFLKVLPAEGTPGRYLWNTISSEGGKAVSSRSLRTLGTAD 158

Qy         61 LTVVSFYQVAALQGD-------LASLRAELQGHHAEKL----PAG----AGAPKAGLEEA 105
                ::|   |   |         || :::|   ||| |     ||       | | ||  :
Db        159 GGTLTFQPEAVAAGTDPSVAALLAPVQAELARTHAELLAGLDPASFGLLRGGPAAGSPKP 218

Qy        106 PAVTAGLKIFEPPAP 120
                 ||  :|||:|
Db        219 GQGFVRLKTLQPPSP 233


RESULT 15
RGBYD2
translation regulator GCD2 - yeast (Saccharomyces cerevisiae)
N;Alternate names: protein G4615; protein YGR083c
C;Species: Saccharomyces cerevisiae
C;Date: 30-Jun-1991 #sequence_revision 30-Jun-1991 #text_change 16-Jun-2000
C;Accession: S05809; S64378
R;Paddon, C.J.; Hannig, E.M.; Hinnebusch, A.G.
Genetics 122, 551-559, 1989
A;Title: Amino acid sequence similarity between GCN3 and GCD2, positive and negative tra
A;Reference number: S05809; MUID:89339141; PMID:2668117
A;Accession: S05809
A;Molecule type: DNA
A;Residues: 1-651 <PAD>
A;Cross-references: EMBL:X15658; NID:g3733; PIDN:CAA33693.1; PID:g3734
R;Wedler, H.; Scharfe, M.; Wedler, E.; Wambutt, R.
submitted to the Protein Sequence Database, May 1996
A;Reference number: S64356
A;Accession: S64378
A;Molecule type: DNA
A;Residues: 1-651 <WED>
A;Cross-references: EMBL:Z72868; NID:g1323118; PIDN:CAA97085.1; PID:g1323119; GSPDB:GN00
A;Experimental source: strain S288C
C;Genetics:
A;Gene: SGD:GCD2; GCD12; MIPS:YGR083c
A;Cross-references: SGD:S0003315; MIPS:YGR083c
A;Map position: 7R
C;Superfamily: translation regulator GCD2
C;Keywords: P-loop; phosphoprotein
F;573-580/Region: nucleotide-binding motif A (P-loop) #status atypical
F;106/Binding site: phosphate (Ser) (covalent) (by cAMP-dependent kinase) #status predic
F;121/Binding site: phosphate (Thr) (covalent) (by cAMP-dependent kinase) #status predic

  Query Match             6.4%;  Score 93.5;  DB 1;  Length 651;
  Best Local Similarity   19.1%;  Pred. No. 5.7;
  Matches   67;  Conservative   55;  Mismatches  140;  Indels   89;  Gaps   15;

Qy          2 DDSTEREQSRLTSCLKKREEMKLKECVSI--LPRKE---------SPSVRSSKDGKLLAA 50
              :   :||| :  :  ||: |  :|:       |   |         : :| | |  :: ||

Db         81 EQQQKREQKQKNANKKKQNERNVKKSTLFGHLETTEERRATILALTSAVSSPKTSRITAA 140

Qy         51 TLLLALLSCCLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTA 110
              |:: :::           :|| |       : |       :| | |       ||| |
Db        141 GLMVPVVA-----------SALSGSNVLTASSL-------MPVGPNASSTVSASAPASTT 182

Qy        111 GLKIFEPPAPGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWL- 169
                  |   | || ::    |:|  :|  : :   :    : :::  | :  :| :
Db        183 TTLPASSAALSAGTSSASTNTPTAIQ--QEIASSNASDVAKTLASISLEAGEFNVIPGIS 240

Qy        170 --------LSFKRGSALEE-KE---NK--------ILVKETGYPFIYG------------ 197
                     ||   | :   ||   ||          :|     :: | |
Db        241 SVIPTVLEQSFDNSSLISSVKELLLNKDLIHPSILLLTSHLAHYKIVGSIPRCIAMLEVF 300

Qy        198 QVLYTDKTYAMGHLIQRKKVHVFGDELSL--------VTLFRCIQNMPETL-------PN 242
              |::  |      |  : |         :: |         ||:   |: : : :       |:
Db        301 QIVIKDYQTPKGTTLSRNLTSYLSHQIDLLKKARPLSVTMGNAIRWLKQEISLIDPSTPD 360

Qy        243 NS-----CYSAG---IAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              :     |   |      |:|  |  || |   : ||     :  :|: |:|
Db        361 KAAKKDLCEKIGQFAKEKIELAD--QLIIDNASTQIEESTTIVTYGSSKVL 409


Search completed: August 25, 2004, 14:44:16
Job time : 36.4697 secs
```

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: August 25, 2004, 14:25:53 ; Search time 14.3939 Seconds
(without alignments)
1030.989 Million cell updates/sec

Title: US-09-911-777B-1
Perfect score: 1451
Sequence: 1 MDDSTEREQSRLTSCLKKRE.....ENAQISLDGDVTFFGALKLL 285

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 141681 seqs, 52070155 residues

Total number of hits satisfying chosen parameters: 141681

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SwissProt_42:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1451	100.0	285	1	T13B_HUMAN	Q9y275 homo sapien
2	910	62.7	309	1	T13B_MOUSE	Q9wu72 mus musculu
3	246.5	17.0	241	1	TN13_MOUSE	Q9d777 mus musculu
4	244.5	16.9	250	1	TN13_HUMAN	O75888 homo sapien
5	118.5	8.2	233	1	TNFA_CANFA	P51742 canis famil
6	116.5	8.0	233	1	TNFA_TURTR	Q9bea1 tursiops tr
7	111.5	7.7	233	1	TNFA_FELCA	P19101 felis silve
8	110.5	7.6	233	1	TNFA_DELLE	Q8wnr1 delphinapte
9	110.5	7.6	235	1	TNFA_RAT	P16599 rattus norv
10	109.5	7.5	235	1	TNFA_MOUSE	P06804 mus musculu
11	108	7.4	233	1	TNFA_BOVIN	Q06599 bos taurus
12	107.5	7.4	235	1	TNFA_PERLE	P36939 peromyscus
13	107	7.4	232	1	TNFA_PIG	P23563 sus scrofa
14	106.5	7.3	234	1	TNFA_CAPHI	P13296 capra hircu
15	105.5	7.3	233	1	TNFA_LAMGL	P59694 lama glama
16	104	7.2	232	1	TNFA_PANTR	Q8hzd9 pan troglod
17	103.5	7.1	234	1	TNFA_BOSIN	P59684 bos indicus
18	103	7.1	233	1	TNFA_BUBBU	P59693 bubalus bub
19	103	7.1	391	1	EDA_BOVIN	Q9beg5 bos taurus
20	102.5	7.1	234	1	TNFA_SHEEP	P23383 ovis aries
21	102.5	7.1	391	1	EDA_HUMAN	Q92838 homo sapien
22	102.5	7.1	391	1	EDA_MOUSE	O54693 mus musculu
23	101.5	7.0	229	1	TNFA_CEREL	P51743 cervus elap
24	100.5	6.9	205	1	TNFB_HUMAN	P01374 homo sapien
25	99	6.8	234	1	TNFA_CAVPO	P51435 cavia porce
26	98.5	6.8	233	1	TNFA_HUMAN	P01375 homo sapien
27	97.5	6.7	184	1	YGFB_PSEAE	Q9htw5 pseudomonas
28	97.5	6.7	281	1	TNF6_HUMAN	P48023 homo sapien
29	97	6.7	281	1	TN10_HUMAN	P50591 homo sapien
30	95.5	6.6	233	1	TNFA_SAISC	Q8mkg8 saimiri sci
31	95.5	6.6	280	1	TNF6_MACMU	Q9myl6 macaca mula
32	95	6.5	233	1	TNFA_TRIVU	P79374 trichosurus
33	93.5	6.4	235	1	TNFA_RABIT	P04924 oryctolagus
34	93.5	6.4	282	1	TNF6_PIG	Q9bea8 sus scrofa
35	93.5	6.4	651	1	E2BD_YEAST	P12754 saccharomyc
36	92.5	6.4	253	1	TNFA_SPAAU	Q8jfg3 sparus aura
37	92.5	6.4	280	1	TNF6_CERTO	Q9bdn1 cercocebus
38	90.5	6.2	204	1	TNFB_PIG	P26445 sus scrofa
39	89.5	6.2	233	1	TNFA_PAPSP	P33620 papio sp. (
40	89.5	6.2	234	1	TNFA_HORSE	P29553 equus cabal
41	89.5	6.2	773	1	UB34_HUMAN	Q9p2h5 homo sapien
42	89	6.1	1267	1	HMT1_HUMAN	Q9h9b1 homo sapien
43	87.5	6.0	233	1	TNFA_PAPAN	P59695 papio anubi
44	87.5	6.0	233	1	TNFA_PAPHU	O77510 papio hamad
45	87.5	6.0	993	1	TSH_DROME	P22265 drosophila

ALIGNMENTS

RESULT 1
T13B_HUMAN
ID T13B_HUMAN STANDARD; PRT; 285 AA.
AC Q9Y275;
DT 16-OCT-2001 (Rel. 40, Created)
DT 16-OCT-2001 (Rel. 40, Last sequence update)
DT 10-OCT-2003 (Rel. 42, Last annotation update)
DE Tumor necrosis factor ligand superfamily member 13B (TNF-and APOL-
DE related leukocyte expressed ligand 1) (TALL-1) (B lymphocyte
DE stimulator) (BLyS) (B cell-activating factor) (BAFF) (Dendritic cell-
DE derived TNF-like molecule).
GN TNFSF13B OR TALL1 OR BLYS OR BAFF OR ZTNF4.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=99260341; PubMed=10331498;
RA Shu H.-B., Hu W.-H., Johnson H.;
RT "TALL-1 is a novel member of the TNF family that is down-regulated by
RT mitogens.";
RL J. Leukoc. Biol. 65:680-683(1999).
RN [2]
RP SEQUENCE FROM N.A., AND SEQUENCE OF 134-148.
RX MEDLINE=99288033; PubMed=10359578;
RA Schneider P., MacKay F., Steiner V., Hofmann K., Bodmer J.-L.,
RA Holler N., Ambrose C., Lawton P., Bixler S., Acha-Orbea H.,
RA Valmori D., Romero P., Werner-Favre C., Zubler R.H., Browning J.L.,
RA Tschopp J.;
RT "BAFF, a novel ligand of the tumor necrosis factor family, stimulates
RT B cell growth.";
RL J. Exp. Med. 189:1747-1756(1999).
RN [3]
RP SEQUENCE FROM N.A.
RC TISSUE=Monocytes, and Neutrophils;
RX MEDLINE=99329343; PubMed=10398604;
RA Moore P.A., Belvedere O., Orr A., Pieri K., LaFleur D.W., Feng P.,
RA Soppet D., Charters M., Gentz R., Parmelee D., Li Y., Galperina O.,
RA Giri J., Roschke V., Nardelli B., Carrell J., Sosnovtseva S.,
RA Greenfield W., Ruben S.M., Olsen H.S., Fikes J., Hilbert D.M.;
RT "BLyS: member of the tumor necrosis factor family and B lymphocyte
RT stimulator.";
RL Science 285:260-263(1999).
RN [4]
RP SEQUENCE FROM N.A.
RA Farrah T., Gross J., Piddington C., O'Hara P.;
RT "Homo sapiens homolog of tumor necrosis factor.";
RL Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
RN [5]
RP SEQUENCE FROM N.A.
RC TISSUE=Dendritic cell;
RA Zhang W., Wan T., Yu Y., Cao X.;
RT "A novel dendritic cell-derived TNF-like molecule.";
RL Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
RN [6]

```
RP   SEQUENCE FROM N.A.
RC   TISSUE=Placenta;
RX   MEDLINE=22388257; PubMed=12477932;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length
RT   human and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [7]
RP   SEQUENCE OF 1-135 FROM N.A., AND VARIANT THR-105.
RA   Kawasaki A., Tsuchiya N., Fukazawa T., Hashimoto H., Tokunaga K.;
RT   "New polymorphisms of human BLyS gene.";
RL   Submitted (OCT-2001) to the EMBL/GenBank/DDBJ databases.
RN   [8]
RP   FUNCTION.
RX   MEDLINE=21170294; PubMed=10973284;
RA   Yu G., Boone T., Delaney J., Hawkins N., Kelley M.J., Ramakrishnan M.,
RA   McCabe S., Qiu W.R., Kornuc M., Xia X.-Z., Guo J., Stolina M.,
RA   Boyle W.J., Sarosi I., Hsu H., Senaldi G., Theill L.E.;
RT   "APRIL and TALL-I and receptors BCMA and TACI: system for regulating
RT   humoral immunity.";
RL   Nat. Immunol. 1:252-256(2000).
RN   [9]
RP   X-RAY CRYSTALLOGRAPHY (3.0 ANGSTROMS) OF 142-285.
RX   MEDLINE=21842897; PubMed=11853672;
RA   Liu Y., Xu L., Opalka N., Kappler J., Shu H.-B., Zhang G.;
RT   "Crystal structure of sTALL-1 reveals a virus-like assembly of TNF
RT   family ligands.";
RL   Cell 108:383-394(2002).
RN   [10]
RP   X-RAY CRYSTALLOGRAPHY (2.8 ANGSTROMS) OF 136-285.
RX   MEDLINE=21686304; PubMed=11827482;
RA   Karpusas M., Cachero T.G., Qian F., Boriack-Sjodin A., Mullen C.,
RA   Strauch K., Hsu Y.-M., Kalled S.L.;
RT   "Crystal structure of extracellular human BAFF, a TNF family member
RT   that stimulates B lymphocytes.";
RL   J. Mol. Biol. 315:1145-1154(2002).
RN   [11]
RP   X-RAY CRYSTALLOGRAPHY (2.0 ANGSTROMS) OF 134-285.
RX   MEDLINE=21912420; PubMed=11862220;
RA   Oren D.A., Li Y., Volovik Y., Morris T.S., Dharia C., Das K.,
RA   Galperina O., Gentz R., Arnold E.;
RT   "Structural basis of BLyS receptor recognition.";
RL   Nat. Struct. Biol. 9:288-292(2002).
CC   -!- FUNCTION: Cytokine that binds to TNFRSF13B/TACI and TNFRSF17/BCMA.
CC       TNFSF13/APRIL binds to the same 2 receptors. Together, they form a
CC       2 ligands -2 receptors pathway involved in the stimulation of B-
CC       and T-cell function and the regulation of humoral immunity. A
CC       third B-cell specific BAFF-receptor (BAFFR/BR3) promotes the
CC       survival of mature B-cells and the B-cell response.
CC   -!- SUBUNIT: Homotrimer.
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC       extracellular soluble form.
CC   -!- TISSUE SPECIFICITY: ABUNDANTLY EXPRESSED IN PERIPHERAL BLOOD
CC       LEUKOCYTES AND IS SPECIFICALLY EXPRESSED IN MONOCYTES AND
CC       MACROPHAGES. ALSO FOUND IN THE SPLEEN, LYMPH NODE, BONE MARROW, T-
CC       CELLS AND DENDRITIC CELLS. A LOWER EXPRESSION SEEN IN PLACENTA,
CC       HEART, LUNG, FETAL LIVER, THYMUS, AND PANCREAS.
CC   -!- INDUCTION: UPREGULATED BY EXPOSURE TO INTERFERON-GAMMA. DOWN-
CC       REGULATED BY PHORBOL MYRISTATE ACETATE/IONOMYCIN TREATMENT.
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing.
CC   -!- PTM: N-glycosylated.
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF136293; AAD29421.1; -.
DR   EMBL; AF116456; AAD25356.1; -.
DR   EMBL; AF132600; AAD21092.1; -.
DR   EMBL; AF186114; AAF01432.1; -.
DR   EMBL; AF134715; AAF60219.1; -.
DR   EMBL; AB073225; BAB90856.1; -.
DR   EMBL; BC020674; AAH20674.1; -.
DR   PDB; 1KXG; 03-APR-02.
DR   PDB; 1KD7; 12-NOV-02.
DR   PDB; 1JH5; 08-FEB-02.
DR   Genew; HGNC:11929; TNFSF13B.
DR   MIM; 603969; -.
DR   GO; GO:0005625; C:soluble fraction; TAS.
DR   GO; GO:0005102; F:receptor binding; TAS.
DR   GO; GO:0008283; P:cell proliferation; TAS.
DR   GO; GO:0008284; P:positive regulation of cell proliferation; TAS.
DR   GO; GO:0007165; P:signal transduction; TAS.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; FALSE_NEG.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Transmembrane; Glycoprotein; Signal-anchor; 3D-structure;
KW   Polymorphism.
FT   CHAIN         1    285       TUMOR NECROSIS FACTOR LIGAND SUPERFAMILY
FT                                MEMBER 13B, MEMBRANE FORM.
FT   CHAIN       134    285       TUMOR NECROSIS FACTOR LIGAND SUPERFAMILY
FT                                MEMBER 13B, SOLUBLE FORM.
FT   DOMAIN        1     46       CYTOPLASMIC (POTENTIAL).
FT   TRANSMEM     47     67       SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
FT                                (POTENTIAL).
FT   DOMAIN       68    285       EXTRACELLULAR (POTENTIAL).
FT   SITE        133    134       CLEAVAGE.
FT   DISULFID    232    245
FT   CARBOHYD    124    124       N-LINKED (GLCNAC. . .).
FT   CARBOHYD    242    242       N-LINKED (GLCNAC. . .) (HIGH MANNOSE).
FT   VARIANT     105    105       A -> T.
FT                                /FTId=VAR_013483.
FT   STRAND      146    151
FT   TURN        153    154
FT   STRAND      158    160
FT   TURN        161    162
FT   STRAND      163    165
FT   STRAND      168    174
FT   STRAND      178    181
FT   TURN        182    183
FT   STRAND      184    187
FT   STRAND      191    201
FT   STRAND      208    215
FT   TURN        221    222
FT   STRAND      226    234
FT   STRAND      243    253
FT   TURN        255    256
FT   STRAND      258    263
FT   TURN        266    267
FT   STRAND      270    270
FT   TURN        274    276
FT   STRAND      278    283
```

```
  Query Match           100.0%;  Score 1451;  DB 1;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 8.4e-116;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 2
T13B_MOUSE
ID   T13B_MOUSE     STANDARD;      PRT;   309 AA.
AC   Q9WU72;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Tumor necrosis factor ligand superfamily member 13B (B cell-activating
DE   factor) (BAFF).
GN   TNFSF13B OR BAFF.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=99288033; PubMed=10359578;
RA   Schneider P., MacKay F., Steiner V., Hofmann K., Bodmer J.-L.,
RA   Holler N., Ambrose C., Lawton P., Bixler S., Acha-Orbea H.,
RA   Valmori D., Romero P., Werner-Favre C., Zubler R.H., Browning J.L.,
RA   Tschopp J.;
RT   "BAFF, a novel ligand of the tumor necrosis factor family, stimulates
RT   B cell growth.";
RL   J. Exp. Med. 189:1747-1756(1999).
RN   [2]
RP   SEQUENCE FROM N.A., AND VARIANT SER-79.
RC   STRAIN=NZB;
RX   MEDLINE=21850530; PubMed=11862414;
RA   Jiang Y., Ohtsuji M., Abe M., Li N., Xiu Y., Wen X.S., Shirai T.,
RA   Hirose S.;
RT   "Polymorphism and chromosomal mapping of the mouse gene for B-cell
RT   activating factor belonging to the tumor necrosis factor family
RT   (Baff) and association with the autoimmune phenotype.";
RL   Immunogenetics 53:810-813(2001).
CC   -!- FUNCTION: Cytokine that binds to TNFRSF13B/TACI and TNFRSF17/BCMA.
CC       TNFSF13/APRIL binds to the same 2 receptors. Together, they form a
CC       2 ligands -2 receptors pathway involved in the stimulation of B-
CC       and T-cell function and the regulation of humoral immunity. A
CC       third B-cell specific BAFF-receptor (BAFFR/BR3) promotes the
CC       survival of mature B-cells and the B-cell response.
CC   -!- SUBUNIT: Homotrimer.
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC       extracellular soluble form.
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing.
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF119383; AAD22475.1; -.
DR   EMBL; AF352245; AAL83939.1; -.
DR   MGD; MGI:1344376; Tnfsf13b.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; FALSE_NEG.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Transmembrane; Glycoprotein; Signal-anchor;
KW   Polymorphism.
FT   CHAIN         1    309       TUMOR NECROSIS FACTOR LIGAND SUPERFAMILY
FT                                MEMBER 13B, MEMBRANE FORM.
FT   CHAIN       127    309       TUMOR NECROSIS FACTOR LIGAND SUPERFAMILY
FT                                MEMBER 13B, SOLUBLE FORM.
FT   DOMAIN        1     47       CYTOPLASMIC (POTENTIAL).
FT   TRANSMEM     48     68       SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
FT                                (POTENTIAL).
FT   DOMAIN       69    309       EXTRACELLULAR (POTENTIAL).
FT   SITE        126    127       CLEAVAGE (BY SIMILARITY).
FT   DISULFID    256    269       BY SIMILARITY.
FT   CARBOHYD    117    117       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CARBOHYD    266    266       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   VARIANT      79     79       N -> S (IN STRAIN NZB).
SQ   SEQUENCE   309 AA;  34192 MW;  F3DE6056E66034B4 CRC64;

  Query Match           62.7%;  Score 910;  DB 1;  Length 309;
  Best Local Similarity  60.4%;  Pred. No. 7.3e-70;
  Matches  192;  Conservative   33;  Mismatches   51;  Indels   42;  Gaps    5;

Qy          1 MDDSTER-EQSRLTSCLKKREEMKLKECVSILPRKESPS-VRSSKDGKLLAATLLLALLS 58
              ||:| :      |  | :| |:||:     | |:||  :     :||:||||||||||||
Db          1 MDESAKTLPPPCLCFCSEKGEDMKV-GYDPITPQKEEGAWFGICRDGRLLAATLLLALLS 59

Qy         59 CCLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPP 118
              | :| ||:|||| || :|| ||| :      || ||||:          :|||:|:  |
Db         60 SSFTAMSLYQLAALQADLMNLRMELQSYRGSATPAAAGAPE--------LTAGVKLLTPA 111

Qy        119 APGEGNSSQNSRNKRAVQGPEET-----------------------------VTQDCL 147
              ||   |||:  ||:|| ||||||                             : ||||
Db        112 APRPHNSSRGHRNRRAFQGPEETEQDVDLSAPPAPCLPGCRHSQHDDNGMNLRNIIQDCL 171

Qy        148 QLIADSETPTIQKGSYTFVPWLLSFKRGSALEEKENKILVKETGYFFIYGQVLYTDKTYA 207
              |||||:||||:||:|||||||||||||:|||||||||:|::|||||| ||||||  :|
Db        172 QLIADSDTPTIRKGTYTFVPWLLSFKRGNALEEKENKIVVRQTGYFFIYSQVLYTDPIFA 231

Qy        208 MGHLIQRKKVHVFGDELSLVTLFRCIQNMPETLPNNSCYSAGIAKLEEGDELQLAIPREN 267
              |||:|||||||||||||||||||||:|||||||||||||:||||||:|||||||||||||
Db        232 MGHVIQRKKVHVFGDELSLVTLFRCIQNMPKTLPNNSCYSAGIARLEEGDEIQLAIPREN 291

Qy        268 AQISLDGDVTFFGALKLL 285
              |||| :|| |||||||||
Db        292 AQISRNGDDTFFGALKLL 309


RESULT 3
TN13_MOUSE
ID   TN13_MOUSE     STANDARD;      PRT;   241 AA.
AC   Q9D777; Q9ERP1;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   28-FEB-2003 (Rel. 41, Last annotation update)
DE   Tumor necrosis factor ligand superfamily member 13 (A proliferation-
DE   inducing ligand) (APRIL).
GN   TNFSF13 OR APRIL.
OS   Mus musculus (Mouse).
```

```
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Lung;
RX   MEDLINE=21170294; PubMed=10973284;
RA   Yu G., Boone T., Delaney J., Hawkins N., Kelley M.J., Ramakrishnan M.,
RA   McCabe S., Qiu W.R., Kornuc M., Xia X.-Z., Guo J., Stolina M.,
RA   Boyle W.J., Sarosi I., Hsu H., Senaldi G., Theill L.E.;
RT   "APRIL and TALL-I and receptors BCMA and TACI: system for regulating
RT   humoral immunity.";
RL   Nat. Immunol. 1:252-256(2000).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Tongue;
RX   MEDLINE=21085660; PubMed=11217851;
RA   Kawai J., Shinagawa A., Shibata K., Yoshino M., Itoh M., Ishii Y.,
RA   Arakawa T., Hara A., Fukunishi Y., Konno H., Adachi J., Fukuda S.,
RA   Aizawa K., Izawa M., Nishi K., Kiyosawa H., Kondo S., Yamanaka I.,
RA   Saito T., Okazaki Y., Gojobori T., Bono H., Kasukawa T., Saito R.,
RA   Kadota K., Matsuda H.A., Ashburner M., Batalov S., Casavant T.,
RA   Fleischmann W., Gaasterland T., Gissi C., King B., Kochiwa H.,
RA   Kuehl P., Lewis S., Matsuo Y., Nikaido I., Pesole G., Quackenbush J.,
RA   Schriml L.M., Staubli F., Suzuki R., Tomita M., Wagner L., Washio T.,
RA   Sakai K., Okido T., Furuno M., Aono H., Baldarelli R., Barsh G.,
RA   Blake J., Boffelli D., Bojunga N., Carninci P., de Bonaldo M.F.,
RA   Brownstein M.J., Bult C., Fletcher C., Fujita M., Gariboldi M.,
RA   Gustincich S., Hill D., Hofmann M., Hume D.A., Kamiya M., Lee N.H.,
RA   Lyons P., Marchionni L., Mashima J., Mazzarelli J., Mombaerts P.,
RA   Nordone P., Ring B., Ringwald M., Rodriguez I., Sakamoto N.,
RA   Sasaki H., Sato K., Schoenbach C., Seya T., Shibata Y., Storch K.-F.,
RA   Suzuki H., Toyo-oka K., Wang K.H., Weitz C., Whittaker C., Wilming L.,
RA   Wynshaw-Boris A., Yoshida K., Hasegawa Y., Kawaji H., Kohtsuki S.,
RA   Hayashizaki Y.;
RT   "Functional annotation of a full-length mouse cDNA collection.";
RL   Nature 409:685-690(2001).
CC   -!- FUNCTION: Cytokine that binds to TNFRSF13B/TACI and to
CC       TNFRSF17/BCMA. May be implicated in the regulation of tumor cell
CC       growth. May be involved in monocyte/macrophage-mediated
CC       immunological processes.
CC   -!- SUBUNIT: Homotrimer (Potential).
CC   -!- SUBCELLULAR LOCATION: Secreted (By similarity).
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing.
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF294825; AAG22534.1; -.
DR   EMBL; AK009514; BAB26332.1; -.
DR   MGD; MGI:1916833; Tnfsf13.
DR   GO; GO:0008284; P:positive regulation of cell proliferation; IDA.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Immune response; Glycoprotein.
FT   PROPEP          1     95       BY SIMILARITY.
FT   CHAIN          96    241       TUMOR NECROSIS FACTOR LIGAND SUPERFAMILY
FT                                  MEMBER 13.
FT   SITE           95     96       CLEAVAGE (BY FURIN) (BY SIMILARITY).
FT   DISULFID      187    202       POTENTIAL.
FT   CARBOHYD      115    115       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CONFLICT      120    120       MISSING (IN REF. 2).
SQ   SEQUENCE   241 AA;  26889 MW;  4B96D03BDBC712A4 CRC64;
```

```
  Query Match             17.0%;  Score 246.5;  DB 1;  Length 241;
  Best Local Similarity   30.1%;  Pred. No. 1e-13;
  Matches   75;  Conservative   40;  Mismatches   81;  Indels   53;  Gaps    9;

Qy         53 LLALLSCCLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAG-------LEEA 105
              :|  ::| : ::        | :| ||| |:    :    :|  : | |         |::
Db         29 VLGAVTCAVALL------IQQTELQSLRREV----SRLQRSGGPSQKQGERPWQSLWEQS 78

Qy        106 PAVTAGLKIFEPPAPGEGNSSQNSRNKRAVQGPEETVTQDCLQLI-------ADSETPTI 158
              | |    |                || :|||   :       | |:       |||:
Db         79 PDVLEAWK-----------DGAKSRRRRAVLTQKHKKKHSVLHLVPVNITSKADSDV--- 124

Qy        159 QKGSYTFVPWLLSFKRGSALEEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVH 218
                | | |    :||  || : : : | :|| : :| |||: | | |: || :: |:
Db        125 -----TEVMWQPVLRRGRGLEAQGDIVRVWDTGIYLLYSQVLFHDVTFTMGQVVSRE--- 176

Qy        219 VFGDELSLVTLFRCIQNMPETLPN---NSCYSAGIAKLEEGDELQLAIPRENAQISLDGD 275
                :    ||||||::||   |:   |||||||:  | :|| : : ||| ||::||
Db        177 ---GQGRRETLFRCIRSMPSD-PDRAYNSCYSAGVFHLHQGDIITVKIPRANAKLSLSPH 232

Qy        276 VTFFGALKL 284
              || | :||
Db        233 GTFLGFVKL 241


RESULT 4
TN13_HUMAN
ID   TN13_HUMAN     STANDARD;      PRT;   250 AA.
AC   O75888; Q96HV6; Q9P1M8; Q9P1M9;
DT   16-OCT-2001 (Rel. 40, Created)
DT   16-OCT-2001 (Rel. 40, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Tumor necrosis factor ligand superfamily member 13 (A proliferation-
DE   inducing ligand) (APRIL) (TNF-and APOL-related leukocyte expressed
DE   ligand 2) (TALL-2) (TNF-related death ligand-1) (TRDL-1).
GN   TNFSF13 OR APRIL OR TALL2 OR ZTNF2.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Uterus;
RX   MEDLINE=98416181; PubMed=9743536;
RA   Hahne M., Kataoka T., Schroeter M., Hofmann K., Irmler M.,
RA   Bodmer J.-L., Schneider P., Bornand T., Holler N., French L.E.,
RA   Sordat B., Rimoldi D., Tschopp J.;
RT   "APRIL, a new ligand of the tumor necrosis factor family, stimulates
RT   tumor cell growth.";
RL   J. Exp. Med. 188:1185-1190(1998).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=99260341; PubMed=10331498;
RA   Shu H.-B., Hu W.-H., Johnson H.;
RT   "TALL-1 is a novel member of the TNF family that is down-regulated by
RT   mitogens.";
RL   J. Leukoc. Biol. 65:680-683(1999).
RN   [3]
RP   SEQUENCE FROM N.A.
RA   Farrah T., Grant F., Haldeman B., Whitmore T., Gross J., O'Hara P.;
RT   "Homo sapiens tumor necrosis factor homolog.";
RL   Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   SEQUENCE FROM N.A. (ISOFORMS ALPHA; BETA AND GAMMA).
RX   MEDLINE=20168636; PubMed=10706119;
RA   Kelly K.A., Manos E.J., Jensen G.T., Nadauld L., Jones D.A.;
RT   "APRIL/TRDL-1, a tumor necrosis factor-like ligand, stimulates cell
RT   death.";
RL   Cancer Res. 60:1021-1027(2000).
RN   [5]
RP   SEQUENCE OF 1-247 FROM N.A.
RC   TISSUE=Ovary;
```

```
RX   MEDLINE=22388257; PubMed=12477932;
RA   Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA   Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA   Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA   Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA   Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA   Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA   Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA   Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA   Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA   Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA   Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA   Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA   Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA   Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA   Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA   Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA   Schnerch A., Schein J.E., Jones S.J.M., Marra M.A.;
RT   "Generation and initial analysis of more than 15,000 full-length
RT   human and mouse cDNA sequences.";
RL   Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).
RN   [6]
RP   FUNCTION.
RX   MEDLINE=21170294; PubMed=10973284;
RA   Yu G., Boone T., Delaney J., Hawkins N., Kelley M.J., Ramakrishnan M.,
RA   McCabe S., Qiu W.R., Kornuc M., Xia X.-Z., Guo J., Stolina M.,
RA   Boyle W.J., Sarosi I., Hsu H., Senaldi G., Theill L.E.;
RT   "APRIL and TALL-I and receptors BCMA and TACI: system for regulating
RT   humoral immunity.";
RL   Nat. Immunol. 1:252-256(2000).
RN   [7]
RP   PROCESSING BY FURIN, MUTAGENESIS OF 101-ARG--ARG-104, AND
RP   SUBCELLULAR LOCATION.
RX   MEDLINE=21486098; PubMed=11571266;
RA   Lopez-Fraga M., Fernandez R., Albar J.P., Hahne M.;
RT   "Biologically active APRIL is secreted following intracellular
RT   processing in the Golgi apparatus by furin convertase.";
RL   EMBO Rep. 2:945-951(2001).
CC   -!- FUNCTION: Cytokine that binds to TNFRSF13B/TACI and to
CC       TNFRSF17/BCMA. May be implicated in the regulation of tumor cell
CC       growth. May be involved in monocyte/macrophage-mediated
CC       immunological processes.
CC   -!- SUBUNIT: Homotrimer (Potential).
CC   -!- SUBCELLULAR LOCATION: Secreted.
CC   -!- ALTERNATIVE PRODUCTS:
CC       Event=Alternative splicing; Named isoforms=3;
CC       Name=Alpha;
CC         IsoId=O75888-1; Sequence=Displayed;
CC       Name=Beta;
CC         IsoId=O75888-2; Sequence=VSP_006450;
CC       Name=Gamma;
CC         IsoId=O75888-3; Sequence=VSP_006451;
CC   -!- TISSUE SPECIFICITY: EXPRESSED AT HIGH LEVELS IN TRANSFORMED CELL
CC       LINES, CANCERS OF COLON, THYROID, LYMPHOID TISSUES AND
CC       SPECIFICALLY EXPRESSED IN MONOCYTES AND MACROPHAGES.
CC   -!- INDUCTION: DOWN-REGULATED BY PHORBOL MYRISTATE ACETATE/IONOMYCIN
CC       TREATMENT.
CC   -!- PTM: The precursor is cleaved by furin.
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF046888; AAC61312.1; -.
DR   EMBL; AF136294; AAD29422.1; -.
DR   EMBL; AF184972; AAF01321.1; -.
DR   EMBL; AF114011; AAF59828.1; -.
DR   EMBL; AF114012; AAF59829.1; -.
DR   EMBL; AF114013; AAF59830.1; -.
DR   EMBL; BC008042; AAH08042.1; -.
DR   Genew; HGNC:11928; TNFSF13.
DR   MIM; 604472; -.
DR   GO; GO:0005102; F:receptor binding; TAS.
DR   GO; GO:0008284; P:positive regulation of cell proliferation; TAS.
DR   GO; GO:0007165; P:signal transduction; TAS.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   Pfam; PF00229; TNF; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Immune response; Glycoprotein;
KW   Alternative splicing.
FT   PROPEP       1    104
FT   CHAIN      105    250       TUMOR NECROSIS FACTOR LIGAND SUPERFAMILY
FT                               MEMBER 13.
FT   SITE       104    105       CLEAVAGE (BY FURIN).
FT   DISULFID   196    211       POTENTIAL.
FT   CARBOHYD   124    124       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   VARSPLIC   113    129       KQHSVLHLVPINATSKD -> N (in isoform Beta).
FT                               /FTId=VSP_006450.
FT   VARSPLIC   247    249       Missing (In isoform Gamma).
FT                               /FTId=VSP_006451.
FT   MUTAGEN    101    104       RKRR->AKRA: ABOLISHES PROTEOLYTIC
FT                               PROCESSING.
FT   CONFLICT    96     96       N -> S (IN REF. 5).
FT   CONFLICT   247    247       F -> L (IN REF. 5).
SQ   SEQUENCE   250 AA;  27433 MW;  AE1A6B9457F6E298 CRC64;

  Query Match             16.9%;  Score 244.5;  DB 1;  Length 250;
  Best Local Similarity   29.7%;  Pred. No. 1.6e-13;
  Matches   70;  Conservative   47;  Mismatches   90;  Indels   29;  Gaps    8;

Qy         54 LALLSCCLTVVSFYQVAALQGDLASLRAELQGHHAEKLPA--GAGAPKAGLEEAPAVTAG 111
              |  ::| : :::       | :| ||| |:         |:  | | |   | |  :
Db         39 LGAVACAMALLT------QQTELQSLRREVSRLQGTGGPSQNGEGYPWQSLPEQS--SDA 90

Qy        112 LKIFEPPAPGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLS 171
              |: :|       : : || :|||   ::       | |:  : | :       | | |  :
Db         91 LEAWE--------NGERSRKRRAVLTQKQKKQHSVLHLVPINAT-SKDDSDVTEVMWQPA 141

Qy        172 FKRGSALEEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFR 231
               :||  |: :   : ::: | : :| ||| : | |: || :: |:       :    ||||
Db        142 LRRGRGLQAQGYGVRIQDAGVYLLYSQVLFQDVTFTMGQVVSRE------GQGRQETLFR 195

Qy        232 CIQNMPETLPN---NSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKL 284
              ||:|| : |:   |||||||:  | :|| | : |||  |:::|    || | :||
Db        196 CIRSMP-SHPDRAYNSCYSAGVFHLHQGDILSVIIPRARAKLNLSPHGTFLGFVKL 250


RESULT 5
TNFA_CANFA
ID   TNFA_CANFA     STANDARD;      PRT;   233 AA.
AC   P51742; Q28339;
DT   01-OCT-1996 (Rel. 34, Created)
DT   01-OCT-1996 (Rel. 34, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE   ligand superfamily member 2) (TNF-a) (Cachectin).
GN   TNF OR TNFSF2 OR TNFA.
OS   Canis familiaris (Dog).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX   NCBI_TaxID=9615;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Fiers W.;
RT   "Tumour necrosis factor.";
RL   (In) Sim E. (eds.);
RL   The natural immune system humoral factors, pp.65-119, IRL Press,
RL   Oxford (1993).
```

```
RN   [2]
RP   SEQUENCE FROM N.A.
RA   Zucker K., Lu P., Fuller L., Asthana D., Esquenazi V., Miller J.;
RT   "Cloning and expression of the cDNA for canine tumor necrosis
RT   factor-alpha in E. coli.";
RL   Lymphokine Res. 13:191-196(1994).
RN   [3]
RP   SEQUENCE OF 74-205 FROM N.A.
RC   STRAIN=Beagle; TISSUE=Blood;
RA   Gilmore W.H., Carter S.D., Bennett M., Barnes A., Kelly D.F.;
RL   Submitted (MAR-1996) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
CC       TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can
CC       induce cell death of certain tumor cell lines. It is potent
CC       pyrogen causing fever by direct action or by stimulation of
CC       interleukin 1 secretion and is implicated in the induction of
CC       cachexia, Under certain conditions it can stimulate cell
CC       proliferation and induce cell differentiation.
CC   -!- SUBUNIT: Homotrimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC       extracellular soluble form (By similarity).
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing (By similarity).
CC   -!- PTM: The membrane form, but not the soluble form, is
CC       phosphorylated on serine residues. Dephosphorylation of the
CC       membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
CC       similarity).
CC   -!- DISEASE: Cachexia accompanies a variety of diseases, including
CC       cancer and infection, and is characterized by general ill health
CC       and malnutrition.
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X94932; CAA64403.1; -.
DR   EMBL; S74068; AAB32391.1; -.
DR   EMBL; Z70046; CAA93908.1; -.
DR   HSSP; P01375; 4TSV.
DR   InterPro; IPR006053; TNF_abc.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   InterPro; IPR003636; TNF_subf.
DR   Pfam; PF00229; TNF; 1.
DR   PRINTS; PR01234; TNECROSISFCT.
DR   ProDom; PD002012; TNF_subf; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Transmembrane; Signal-anchor; Phosphorylation.
FT   CHAIN         1    233       TUMOR NECROSIS FACTOR, MEMBRANE FORM.
FT   CHAIN        77    233       TUMOR NECROSIS FACTOR, SOLUBLE FORM.
FT   DOMAIN        1     35       CYTOPLASMIC (POTENTIAL).
FT   TRANSMEM     36     56       SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
FT                                 (POTENTIAL).
FT   DOMAIN       57    233       EXTRACELLULAR (POTENTIAL).
FT   SITE         76     77       CLEAVAGE (BY ADAM17) (BY SIMILARITY).
FT   MOD_RES       2      2       PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
FT   DISULFID    145    177       BY SIMILARITY.
FT   CONFLICT     59     60       QR -> PE (IN REF. 2).
FT   CONFLICT     66     66       G -> C (IN REF. 2).
FT   CONFLICT     74     74       A -> V (IN REF. 3).
FT   CONFLICT    111    111       A -> D (IN REF. 2).
FT   CONFLICT    116    116       G -> D (IN REF. 2).
FT   CONFLICT    134    135       IY -> DS (IN REF. 2).
SQ   SEQUENCE   233 AA;  25447 MW;  7B2588FBC8B25340 CRC64;

  Query Match             8.2%;  Score 118.5;  DB 1;  Length 233;
  Best Local Similarity   22.2%;  Pred. No. 0.007;
  Matches   54;  Conservative   37;  Mismatches   93;  Indels   59;  Gaps    9;

Qy         60 CLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPA 119
              ||:: ||  ||         |   : |   |:||                  ||::  | |
Db         32 CLSLFSFLLVAGATTLFCLLHFGVIGPQREELP----------------NGLQLISPLA 74

Qy        120 PGEGNSSQNSRNK---RAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGS 176
                 :||:   :|     | ||                |: :          : ||   :| :
Db         75 QTVKSSSRTPSDKPVAHVVANPE----------AEGQ----------LQWL--SRRAN 110

Qy        177 AL-----EEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFG----DELSLV 227
              ||     |  :|:::|   | : || |||:  :     |::   :  |       :::|:
Db        111 ALLANGVELTDNQLIVPSDGLYLIYSQVLFKGQGCPSTHVLLTHTISRFAVSYQTKVNLL 170

Qy        228 TLFR--CIQNMPETLPNNSCYS----AGIAKLEEGDELQLAIPRENAQISLDGDVTFFGA 281
              :  : | :  ||       |      |: :||:|| |   |   |     :    :||
Db        171 SAIKSPCQRETPEGTEAKPWYEPIYLGGVFQLEKGDRLSAEINLPNYLDFAESGQVYFGI 230

Qy        282 LKL 284
              : |
Db        231 IAL 233


RESULT 6
TNFA_TURTR
ID   TNFA_TURTR     STANDARD;      PRT;   233 AA.
AC   Q9BEA1;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE   ligand superfamily member 2) (TNF-a) (Cachectin).
GN   TNF OR TNFSF2 OR TNFA.
OS   Tursiops truncatus (Atlantic bottle-nosed dolphin).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Cetacea; Odontoceti; Delphinidae;
OC   Tursiops.
OX   NCBI_TaxID=9739;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=21472839; PubMed=11587733;
RA   Shoji Y., Inoue Y., Sugisawa H., Itou T., Endo T., Sakai T.;
RT   "Molecular cloning and functional characterization of bottlenose
RT   dolphin (Tursiops truncatus) tumor necrosis factor alpha.";
RL   Vet. Immunol. Immunopathol. 82:183-192(2001).
CC   -!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
CC       TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can
CC       induce cell death of certain tumor cell lines. It is potent
CC       pyrogen causing fever by direct action or by stimulation of
CC       interleukin 1 secretion and is implicated in the induction of
CC       cachexia, Under certain conditions it can stimulate cell
CC       proliferation and induce cell differentiation (By similarity).
CC   -!- SUBUNIT: Homotrimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC       extracellular soluble form (By similarity).
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing (By similarity).
CC   -!- PTM: The membrane form, but not the soluble form, is
CC       phosphorylated on serine residues. Dephosphorylation of the
CC       membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
CC       similarity).
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AB049358; BAB39855.1; -.
```

```
DR   HSSP; P01375; 4TSV.
DR   InterPro; IPR006053; TNF_abc.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   InterPro; IPR003636; TNF_subf.
DR   Pfam; PF00229; TNF; 1.
DR   PRINTS; PR01234; TNECROSISFCT.
DR   ProDom; PD002012; TNF_subf; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Transmembrane; Signal-anchor; Phosphorylation.
FT   CHAIN         1    233       TUMOR NECROSIS FACTOR, MEMBRANE FORM.
FT   CHAIN        78    233       TUMOR NECROSIS FACTOR, SOLUBLE FORM.
FT   DOMAIN        1     35       CYTOPLASMIC (POTENTIAL).
FT   TRANSMEM     36     56       SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
FT                                 (POTENTIAL).
FT   DOMAIN       57    233       EXTRACELLULAR (POTENTIAL).
FT   SITE         77     78       CLEAVAGE (BY ADAM17) (BY SIMILARITY).
FT   MOD_RES       2      2       PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
FT   DISULFID    145    177       BY SIMILARITY.
FT   CARBOHYD     95     95       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   233 AA;  25404 MW;  71CC39C699CC49D9 CRC64;

  Query Match             8.0%;  Score 116.5;  DB 1;  Length 233;
  Best Local Similarity   22.7%;  Pred. No. 0.01;
  Matches   56;  Conservative   38;  Mismatches   86;  Indels   67;  Gaps   10;

Qy         60 CLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPA 119
              ||:: ||: ||       |   : |   |: |                 |  |  | |
Db         32 CLSLFSFFLVAGGTTLFCLLHFGVIGPQREEFP----------------TGYSIISPLA 74

Qy        120 PGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKR---GS 176
                 :||: | ||          ||  |:                  || ::     :
Db         75 QTLRSSSKTSSNKPVAHVVANLSTQGQLR----------------WLNTYANTLLAN 115

Qy        177 ALEEKENKILVKETGYFFIYGQVLYTDKTYAMGHL-----IQRKKVHVFGDELSLVTLFR 231
              ::: ::|:::|   | : || |||:  :     ||     | |  |  :  :::|::  :
Db        116 SVKLEDNQLVVPTDGLYLIYSQVLFRGQGCPSTHLFLTHTISRIAVS-YPSKVNLLSAIK 174

Qy        232 --CIQNMPETLP----NNSCYSAGIAKLEEGDELQLAIPRENAQISL--------DGDVT 277
                 | :  ||           |  |: :||:|| |       :|:|:|         | |
Db        175 SPCQRETPEGAEAKPWYEPIYQGGVFQLEKGDRL-------SAEINLPDYLDFAKSGQV- 226

Qy        278 FFGALKL 284
                :|| : |
Db        227 YFGIIAL 233


RESULT 7
TNFA_FELCA
ID   TNFA_FELCA     STANDARD;      PRT;   233 AA.
AC   P19101; Q8HYM0;
DT   01-NOV-1990 (Rel. 16, Created)
DT   10-OCT-2003 (Rel. 42, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE   ligand superfamily member 2) (TNF-a) (Cachectin).
GN   TNF OR TNFSF2 OR TNFA.
OS   Felis silvestris catus (Cat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Carnivora; Fissipedia; Felidae; Felis.
OX   NCBI_TaxID=9685;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Blood;
RX   MEDLINE=91016860; PubMed=2216740;
RA   McGraw R.A., Coffee B.W., Otto C.M., Drews R.T., Rawlings C.A.;
RT   "Gene sequence of feline tumor necrosis factor alpha.";
RL   Nucleic Acids Res. 18:5563-5563(1990).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Bone marrow;
RA   Daniel S.L., Brenner C.A., Legendre A.M., Soloman A., Rouse B.T.;
RT   "Feline cytokines TNF alpha and IL-1 beta: PCR cloning and sequencing
RT   of cDNA.";
RL   Anim. Biotechnol. 3:117-121(1992).
RN   [3]
RP   SEQUENCE OF 95-185 FROM N.A.
RA   Susott E.E., Rollo W.A., Venta P.J., Ewart S.L.;
RT   "Characterization of 8 feline type I markers.";
RL   Submitted (DEC-2001) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
CC       TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can
CC       induce cell death of certain tumor cell lines. It is potent
CC       pyrogen causing fever by direct action or by stimulation of
CC       interleukin 1 secretion and is implicated in the induction of
CC       cachexia, Under certain conditions it can stimulate cell
CC       proliferation and induce cell differentiation.
CC   -!- SUBUNIT: Homotrimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC       extracellular soluble form (By similarity).
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing (By similarity).
CC   -!- PTM: The membrane form, but not the soluble form, is
CC       phosphorylated on serine residues. Dephosphorylation of the
CC       membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
CC       similarity).
CC   -!- DISEASE: Cachexia accompanies a variety of diseases, including
CC       cancer and infection, and is characterized by general ill health
CC       and malnutrition.
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X54000; CAA37948.1; -.
DR   EMBL; M92061; AAA30818.1; -.
DR   EMBL; AF459810; AAO15590.1; -.
DR   PIR; S11688; S11688.
DR   HSSP; P01375; 4TSV.
DR   InterPro; IPR006053; TNF_abc.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   InterPro; IPR003636; TNF_subf.
DR   Pfam; PF00229; TNF; 1.
DR   PRINTS; PR01234; TNECROSISFCT.
DR   ProDom; PD002012; TNF_subf; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Transmembrane; Signal-anchor; Phosphorylation.
FT   CHAIN         1    233       TUMOR NECROSIS FACTOR, MEMBRANE FORM.
FT   CHAIN        77    233       TUMOR NECROSIS FACTOR, SOLUBLE FORM.
FT   DOMAIN        1     35       CYTOPLASMIC (POTENTIAL).
FT   TRANSMEM     36     56       SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
FT                                 (POTENTIAL).
FT   DOMAIN       57    233       EXTRACELLULAR (POTENTIAL).
FT   SITE         76     77       CLEAVAGE (BY ADAM17) (BY SIMILARITY).
FT   MOD_RES       2      2       PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
FT   DISULFID    145    177       BY SIMILARITY.
FT   CONFLICT     28     28       G -> R (IN REF. 2).
FT   CONFLICT    104    104       W -> R (IN REF. 1).
FT   CONFLICT    141    141       T -> K (IN REF. 3).
FT   CONFLICT    151    151       L -> H (IN REF. 2).
FT   CONFLICT    155    155       T -> A (IN REF. 1).
FT   CONFLICT    210    210       T -> A (IN REF. 2).
SQ   SEQUENCE   233 AA;  25382 MW;  03E51823A7863510 CRC64;

  Query Match             7.7%;  Score 111.5;  DB 1;  Length 233;
  Best Local Similarity   23.5%;  Pred. No. 0.027;
```

```
  Matches   58;  Conservative   35;  Mismatches   87;  Indels   67;  Gaps   12;

Qy         60 CLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPA 119
              ||:: ||  ||        |   : |   |:||                ||::  |
Db         32 CLSLFSFLLVAGATTLFCLLHFGVIGPQREELP----------------HGLQLINPLP 74

Qy        120 PGEGNSSQNSRNK---RAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGS 176
                 :||:   :|     |  ||            |: :              : ||   :| :
Db         75 QTLRSSSRTPSDKPVAHVVANPE----------AEGQ----------LQWL--SRRAN 110

Qy        177 AL-----EEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFG----DELSLV 227
              ||     |  :|:: |   | : || |||:| :      |::    :  |      :::|:
Db        111 ALLANGVELTDNQLKVPSDGLYLIYSQVLFTGQGCPSTHVLLTHTISRFAVSYQTKVNLL 170

Qy        228 TLFR--CIQNMPETLPNNSCYS----AGIAKLEEGDELQLAIPRENAQISLD----GDVT 277
              :  :  | :  ||        |      |: :||:|| |   |   |    ||    | |
Db        171 SAIKSPCQRETPEGAEAKPWYEPIYLGGVFQLEKGDRLSTEI---NLPAYLDFAESGQV- 226

Qy        278 FFGALKL 284
              :|| : |
Db        227 YFGIIAL 233


RESULT 8
TNFA_DELLE
ID   TNFA_DELLE     STANDARD;      PRT;   233 AA.
AC   Q8WNR1;
DT   28-FEB-2003 (Rel. 41, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE   ligand superfamily member 2) (TNF-a) (Cachectin).
GN   TNF OR TNFSF2 OR TNFA.
OS   Delphinapterus leucas (Beluga whale).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Cetacea; Odontoceti;
OC   Monodontidae; Delphinapterus.
OX   NCBI_TaxID=9749;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=21618234; PubMed=11768130;
RA   Denis F., Archambault D.;
RT   "Molecular cloning and characterization of beluga whale
RT   (Delphinapterus leucas) interleukin-1beta and tumor necrosis
RT   factor-alpha.";
RL   Can. J. Vet. Res. 65:233-240(2001).
CC   -!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
CC       TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can
CC       induce cell death of certain tumor cell lines. It is potent
CC       pyrogen causing fever by direct action or by stimulation of
CC       interleukin 1 secretion and is implicated in the induction of
CC       cachexia, Under certain conditions it can stimulate cell
CC       proliferation and induce cell differentiation (By similarity).
CC   -!- SUBUNIT: Homotrimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC       extracellular soluble form (By similarity).
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing (By similarity).
CC   -!- PTM: The membrane form, but not the soluble form, is
CC       phosphorylated on serine residues. Dephosphorylation of the
CC       membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
CC       similarity).
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AF320323; AAL56946.1; -.
DR   InterPro; IPR006053; TNF_abc.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   InterPro; IPR003636; TNF_subf.
DR   Pfam; PF00229; TNF; 1.
DR   PRINTS; PR01234; TNECROSISFCT.
DR   ProDom; PD002012; TNF_subf; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Transmembrane; Signal-anchor; Phosphorylation.
FT   CHAIN         1    233       TUMOR NECROSIS FACTOR, MEMBRANE FORM.
FT   CHAIN        78    233       TUMOR NECROSIS FACTOR, SOLUBLE FORM.
FT   DOMAIN        1     35       CYTOPLASMIC (POTENTIAL).
FT   TRANSMEM     36     56       SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
FT                                (POTENTIAL).
FT   DOMAIN       57    233       EXTRACELLULAR (POTENTIAL).
FT   SITE         77     78       CLEAVAGE (BY ADAM17) (BY SIMILARITY).
FT   MOD_RES       2      2       PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
FT   DISULFID    145    177       BY SIMILARITY.
FT   CARBOHYD     95     95       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   233 AA;  25420 MW;  2DF37DCB2BC9E961 CRC64;

  Query Match             7.6%;  Score 110.5;  DB 1;  Length 233;
  Best Local Similarity   22.0%;  Pred. No. 0.033;
  Matches   54;  Conservative   40;  Mismatches   87;  Indels   65;  Gaps   10;

Qy         60 CLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPA 119
              ||:: ||: ||          |   : |   |: |                    | | | |
Db         32 CLSLFSFFLVAGGTTLFCLLHFGVIGPQREEFP----------------TGYSIISPLA 74

Qy        120 PGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKR---GS 176
                 :||: | ||          |       | |  :             : || ::      :
Db         75 QTLRSSSKTSSNK--------PVAHVVANLSAQGQ----------LRWLNTYANTLLAN 115

Qy        177 ALEEKENKILVKETGYFFIYGQVLYTDKTYAMGHL-----IQRKKVHVFGDELSLVTLFR 231
              ::: ::|:::|   | : || |||:  :     ||      | |  |  :  :::|::  :
Db        116 SVKLEDNQLVVPTDGLYLIYSQVLFRGQGCPSTHLFLTHTISRIAVS-YQTKVNLLSAIK 174

Qy        232 --CIQNMPETLP----NNSCYSAGIAKLEEGDELQLAIPRENAQISL-------DGDVTF 278
                | :  ||          |  |: :||:|| |       :|:|:|       :    :
Db        175 SPCQRETPEGAEAKPWYEPIYQGGVFQLEKGDRL-------SAEINLPDYLDFAESGQVY 227

Qy        279 FGALKL 284
              || : |
Db        228 FGIIAL 233


RESULT 9
TNFA_RAT
ID   TNFA_RAT       STANDARD;      PRT;   235 AA.
AC   P16599; Q9JI26; Q9JI27;
DT   01-AUG-1990 (Rel. 15, Created)
DT   01-AUG-1990 (Rel. 15, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE   ligand superfamily member 2) (TNF-a) (Cachectin).
GN   TNF OR TNFSF2 OR TNFA.
OS   Rattus norvegicus (Rat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX   NCBI_TaxID=10116;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Shirai T., Shimizu N., Horiguchi S., Ito H.;
RT   "Cloning and expression in Escherichia coli of the gene for rat tumor
RT   necrosis factor.";
RL   Agric. Biol. Chem. 53:1733-1736(1989).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=92329007; PubMed=1627266;
RA   Estler H.C., Grewe M., Gaussling R., Pavlovic M., Decker K.;
RT   "Rat tumor necrosis factor-alpha. Transcription in rat Kupffer cells
```

```
RT   and in vitro posttranslational processing based on a PCR-derived
RT   cDNA.";
RL   Biol. Chem. Hoppe-Seyler 373:271-281(1992).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Sprague-Dawley; TISSUE=Testis;
RX   MEDLINE=94040766; PubMed=8224868;
RA   Kwon J., Chung I.Y., Benveniste E.N.;
RT   "Cloning and sequence analysis of the rat tumor necrosis
RT   factor-encoding genes.";
RL   Gene 132:227-236(1993).
RN   [4]
RP   SEQUENCE FROM N.A.
RC   STRAIN=ACI/SegHsd, BB(DR)/Wor, BN/SsNHsd, DA/Bkl, F344/NHsd, and
RC   LEW/NHsd;
RX   MEDLINE=21369712; PubMed=11477479;
RA   Furuya T., Joe B., Salstrom J.L., Hashiramoto A., Dobbins D.E.,
RA   Wilder R.L., Remmers E.F.;
RT   "Polymorphisms of the tumor necrosis factor alpha locus among
RT   autoimmune disease susceptible and resistant inbred rat strains.";
RL   Genes Immun. 2:229-232(2001).
RN   [5]
RP   SEQUENCE FROM N.A.
RA   Decker K.F.;
RL   Submitted (OCT-1997) to the EMBL/GenBank/DDBJ databases.
RN   [6]
RP   SEQUENCE FROM N.A., AND VARIANTS PRO-122 AND GLU-190.
RC   STRAIN=Dark Agouti;
RA   Seidel M.F., Junier M.-P., Vetter H.;
RT   "TNF-alpha polymorphism in rats with collagen-induced arthritis.";
RL   Submitted (MAY-2000) to the EMBL/GenBank/DDBJ databases.
RN   [7]
RP   SEQUENCE OF 1-231 FROM N.A.
RC   TISSUE=Tail;
RA   Kirisits M.J., Vardimon D., Kunz H.W., Gill T.J. III;
RL   Submitted (JUN-1993) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
CC       TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can
CC       induce cell death of certain tumor cell lines. It is potent
CC       pyrogen causing fever by direct action or by stimulation of
CC       interleukin 1 secretion and is implicated in the induction of
CC       cachexia, Under certain conditions it can stimulate cell
CC       proliferation and induce cell differentiation.
CC   -!- SUBUNIT: Homotrimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC       extracellular soluble form (By similarity).
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing (By similarity).
CC   -!- PTM: The membrane form, but not the soluble form, is
CC       phosphorylated on serine residues. Dephosphorylation of the
CC       membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
CC       similarity).
CC   -!- DISEASE: Cachexia accompanies a variety of diseases, including
CC       cancer and infection, and is characterized by general ill health
CC       and malnutrition.
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; D00475; BAA00367.1; -.
DR   EMBL; X66539; CAA47146.1; -.
DR   EMBL; L00981; AAA16275.1; -.
DR   EMBL; AF329982; AAK53568.1; -.
DR   EMBL; AF329983; AAK53569.1; -.
DR   EMBL; AF329984; AAK53570.1; -.
DR   EMBL; AF329985; AAK53571.1; -.
DR   EMBL; AF329986; AAK53572.1; -.
DR   EMBL; AF329987; AAK53573.1; -.
DR   EMBL; AJ002278; CAA05290.1; -.
DR   EMBL; AF269159; AAF82567.1; -.
DR   EMBL; AF269160; AAF82568.1; -.
DR   EMBL; L19123; AAA42255.1; -.
DR   PIR; JU0029; JU0029.
DR   HSSP; P06804; 2TNF.
DR   InterPro; IPR006053; TNF_abc.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   InterPro; IPR003636; TNF_subf.
DR   Pfam; PF00229; TNF; 1.
DR   PRINTS; PR01234; TNECROSISFCT.
DR   ProDom; PD002012; TNF_subf; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Transmembrane; Signal-anchor; Phosphorylation.
FT   CHAIN        1    235       TUMOR NECROSIS FACTOR, MEMBRANE FORM.
FT   CHAIN       80    235       TUMOR NECROSIS FACTOR, SOLUBLE FORM.
FT   DOMAIN       1     35       CYTOPLASMIC (POTENTIAL).
FT   TRANSMEM    36     56       SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
FT                               (POTENTIAL).
FT   DOMAIN      57    235       EXTRACELLULAR (POTENTIAL).
FT   SITE        79     80       CLEAVAGE (BY ADAM17) (BY SIMILARITY).
FT   MOD_RES      2      2       PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
FT   DISULFID   148    179       BY SIMILARITY.
FT   CARBOHYD    86     86       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   VARIANT    122    122       L -> P.
FT   VARIANT    190    190       K -> E.
FT   CONFLICT    39     39       L -> P (IN REF. 2 AND 5).
FT   CONFLICT   163    163       I -> T (IN REF. 2 AND 5).
FT   CONFLICT   202    202       F -> S (IN REF. 2 AND 5).
SQ   SEQUENCE   235 AA;  25806 MW;  B808EC6D049C2F3B CRC64;

  Query Match             7.6%;  Score 110.5;  DB 1;  Length 235;
  Best Local Similarity   22.2%;  Pred. No. 0.034;
  Matches   54;  Conservative   45;  Mismatches   87;  Indels   57;  Gaps   11;

Qy         60 CLTVVSFYQVAALQGDLASLRAELQG-HHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPP 118
              ||:: ||  ||         |   : | :  || | |       |  : | |  |:
Db         32 CLSLFSFLLVAGATTLFCLLNFGVIGPNKEEKFPNG-----LPLISSMAQTLTLR----- 81

Qy        119 APGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSAL 178
              :||||| :|      :: |: ::     : |                :
Db         82 -----SSSQNSSDKPVAHVVANHQAEEQLEWLSQRANALLANG---------------M 120

Qy        179 EEKENKILVKETGYFFIYGQVLYTDK----TYAMGHLIQRKKVHVFGDELSLVTLFR--C 232
              : |:|:::|   | : || |||:  :       : | : |  :  : :::||::  :  |
Db        121 DLKDNQLVVPADGLYLIYSQVLFKGQGCPDYVLLTHTVSRFAIS-YQEKVSLLSAIKSPC 179

Qy        233 IQNMPETLP----NNSCYSAGIAKLEEGDELQLAIPRENAQISLDG--DVT-----FFGA 281
              :: ||           |  |: :||:|| |       :|:::|    |:|     :||
Db        180 PKDTPEGAELKPWYEPMYLGGVFQLEKGDLL-------SAEVNLPKYLDITESGQVYFGV 232

Qy        282 LKL 284
              : |
Db        233 IAL 235


RESULT 10
TNFA_MOUSE
ID   TNFA_MOUSE     STANDARD;      PRT;   235 AA.
AC   P06804; O35853; Q62326; Q91VF3;
DT   01-JAN-1988 (Rel. 06, Created)
DT   01-MAR-1989 (Rel. 10, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE   ligand superfamily member 2) (TNF-a) (Cachectin).
GN   TNF OR TNFSF2 OR TNFA.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
```

```
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=88224564; PubMed=2836146;
RA   Shirai T., Shimizu N., Shiojiri S., Horiguchi S., Ito H.;
RT   "Cloning and expression in Escherichia coli of the gene for mouse
RT   tumor necrosis factor.";
RL   DNA 7:193-201(1988).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=85298296; PubMed=3898078;
RA   Pennica D., Hayflick J.S., Bringman T.S., Palladino M.A.,
RA   Goeddel D.V.;
RT   "Cloning and expression in Escherichia coli of the cDNA for murine
RT   tumor necrosis factor.";
RL   Proc. Natl. Acad. Sci. U.S.A. 82:6060-6064(1985).
RN   [3]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=86149365; PubMed=2419912;
RA   Caput D., Beutler B., Hartog K., Thayer R., Brown-Shimer S.,
RA   Cerami A.;
RT   "Identification of a common nucleotide sequence in the
RT   3'-untranslated region of mRNA molecules specifying inflammatory
RT   mediators.";
RL   Proc. Natl. Acad. Sci. U.S.A. 83:1670-1674(1986).
RN   [4]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=85242112; PubMed=2989794;
RA   Fransen L., Mueller R., Marmenout A., Tavernier J., van der Heyden J.,
RA   Kawashima E., Chollet A., Tizard R., van Heuverswyn H., van Vliet A.,
RA   Ruysschaert M.-R., Fiers W.;
RT   "Molecular cloning of mouse tumour necrosis factor cDNA and its
RT   eukaryotic expression.";
RL   Nucleic Acids Res. 13:4417-4429(1985).
RN   [5]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=87298639; PubMed=3040015;
RA   Shakhov A.N., Nedospasov S.A.;
RT   "Molecular cloning of genes coding for tumor necrosis factor.
RT   Complete nucleotide sequence of the genome copy of TNF-alpha in
RT   mice.";
RL   Bioorg. Khim. 13:701-705(1987).
RN   [6]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=88067722; PubMed=3684584;
RA   Semon D., Kawashima E., Jongeneel C.V., Shakhov A.N., Nedospasov S.A.;
RT   "Nucleotide sequence of the murine TNF locus, including the TNF-alpha
RT   (tumor necrosis factor) and TNF-beta (lymphotoxin) genes.";
RL   Nucleic Acids Res. 15:9083-9084(1987).
RN   [7]
RP   SEQUENCE FROM N.A.
RC   STRAIN=CTS, and NOD;
RX   MEDLINE=96013654; PubMed=7560085;
RA   Ikegami H., Makino S., Yamato E., Kawaguchi Y., Ueda H., Sakamoto T.,
RA   Takekawa K., Ogihara T.;
RT   "Identification of a new susceptibility locus for insulin-dependent
RT   diabetes mellitus by ancestral haplotype congenic mapping.";
RL   J. Clin. Invest. 96:1936-1942(1995).
RN   [8]
RP   SEQUENCE FROM N.A., AND VARIANTS THR-7 AND ALA-77.
RC   STRAIN=A/J, BALB/c, and C57BL/6;
RX   MEDLINE=97246744; PubMed=9089109;
RA   Iraqi F., Teale A.;
RT   "Cloning and sequencing of the Tnfa genes of three inbred mouse
RT   strains.";
RL   Immunogenetics 45:459-461(1997).
RN   [9]
RP   SEQUENCE FROM N.A.
RA   Rowen L., Qin S., Madan A., Abbasi N., James R., Dickhoff R.,
RA   Shaffer T., Ratcliffe A., Loretz C., Lasky S., Hood L.;
RT   "Sequence of the mouse major histocompatibility class III region.";
RL   Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
RN   [10]
RP   SEQUENCE OF 1-96 FROM N.A.
RC   STRAIN=BLG2/Msf, BFM/2Msf, C57BL/10SnJ, CAST/Ei, HMI/Msf, MSM/Msf,
RC   NJL/Msf, pgn2, and SWN/Msf;
RA   Liu Y., Kitano T., Koide T., Shiroishi T., Moriwaki K., Saitou N.;
RT   "Conspicuous differences among gene genealogies of 21 nuclear genes of
RT   five Mus musculus subspecies.";
RL   Submitted (FEB-2000) to the EMBL/GenBank/DDBJ databases.
RN   [11]
RP   SEQUENCE OF 70-87.
RX   MEDLINE=89380231; PubMed=2777790;
RA   Cseh K., Beutler B.;
RT   "Alternative cleavage of the cachectin/tumor necrosis factor
RT   propeptide results in a larger, inactive form of secreted protein.";
RL   J. Biol. Chem. 264:16256-16260(1989).
RN   [12]
RP   SEQUENCE OF 80-99.
RX   MEDLINE=91097531; PubMed=2268312;
RA   Sherry B., Juc D.-M., Zentella A., Cerami A.;
RT   "Characterization of high molecular weight glycosylated forms of
RT   murine tumor necrosis factor.";
RL   Biochem. Biophys. Res. Commun. 173:1072-1078(1990).
RN   [13]
RP   IDENTIFICATION OF MEMBRANE-BOUND FORM.
RX   MEDLINE=88165056; PubMed=3349526;
RA   Kriegler M., Perez X., Defay K., Albert I., Lu S.D.;
RT   "A novel form of TNF/cachectin is a cell surface cytotoxic
RT   transmembrane protein: ramifications for the complex physiology of
RT   TNF.";
RL   Cell 53:45-53(1988).
RN   [14]
RP   X-RAY CRYSTALLOGRAPHY (1.4 ANGSTROMS) OF 80-235.
RX   MEDLINE=99190964; PubMed=10089307;
RA   Baeyens K.J., De Bondt H.L., Raeymaekers A., Fiers W., De Ranter C.J.;
RT   "The structure of mouse tumour-necrosis factor at 1.4 A resolution:
RT   towards modulation of its selectivity and trimerization.";
RL   Acta Crystallogr. D 55:772-778(1999).
CC   -!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
CC       TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can
CC       induce cell death of certain tumor cell lines. It is potent
CC       pyrogen causing fever by direct action or by stimulation of
CC       interleukin 1 secretion and is implicated in the induction of
CC       cachexia, Under certain conditions it can stimulate cell
CC       proliferation and induce cell differentiation.
CC   -!- SUBUNIT: Homotrimer.
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC       extracellular soluble form.
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing.
CC   -!- PTM: The membrane form, but not the soluble form, is
CC       phosphorylated on serine residues. Dephosphorylation of the
CC       membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
CC       similarity).
CC   -!- DISEASE: Cachexia accompanies a variety of diseases, including
CC       cancer and infection, and is characterized by general ill health
CC       and malnutrition.
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; M20155; AAA40462.1; ALT_SEQ.
DR   EMBL; M11731; AAA40458.1; -.
DR   EMBL; M13049; AAA40457.1; -.
DR   EMBL; X02611; CAA26457.1; -.
DR   EMBL; M38296; AAA40459.1; -.
DR   EMBL; Y00467; CAA68530.1; -.
DR   EMBL; U06950; AAA18594.1; -.
DR   EMBL; D84196; BAA19512.1; -.
```

```
DR   EMBL; D84194; BAA19512.1; JOINED.
DR   EMBL; D84195; BAA19512.1; JOINED.
DR   EMBL; D84199; BAA19513.1; -.
DR   EMBL; D84197; BAA19513.1; JOINED.
DR   EMBL; D84198; BAA19513.1; JOINED.
DR   EMBL; U68414; AAB65593.1; -.
DR   EMBL; AF109719; AAC82484.1; -.
DR   EMBL; AB039224; BAB68748.1; ALT_SEQ.
DR   EMBL; AB039225; BAB68749.1; ALT_SEQ.
DR   EMBL; AB039226; BAB68750.1; ALT_SEQ.
DR   EMBL; AB039227; BAB68751.1; ALT_SEQ.
DR   EMBL; AB039228; BAB68752.1; ALT_SEQ.
DR   EMBL; AB039229; BAB68753.1; ALT_SEQ.
DR   EMBL; AB039230; BAB68754.1; ALT_SEQ.
DR   EMBL; AB039231; BAB68755.1; ALT_SEQ.
DR   EMBL; AB039232; BAB68756.1; ALT_SEQ.
DR   PIR; A22908; QWMSN.
DR   PDB; 2TNF; 12-OCT-99.
DR   MGD; MGI:104798; Tnf.
DR   GO; GO:0006952; P:defense response; IMP.
DR   GO; GO:0007275; P:development; IMP.
DR   GO; GO:0006959; P:humoral immune response; IMP.
DR   GO; GO:0009887; P:organogenesis; IMP.
DR   GO; GO:0042127; P:regulation of cell proliferation; IDA.
DR   InterPro; IPR006053; TNF_abc.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   InterPro; IPR003636; TNF_subf.
DR   Pfam; PF00229; TNF; 1.
DR   PRINTS; PR01234; TNECROSISFCT.
DR   ProDom; PD002012; TNF_subf; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Transmembrane; Signal-anchor; Phosphorylation; Glycoprotein;
KW   Polymorphism; 3D-structure.
FT   CHAIN         1    235       TUMOR NECROSIS FACTOR, MEMBRANE FORM.
FT   CHAIN        80    235       TUMOR NECROSIS FACTOR, SOLUBLE FORM.
FT   DOMAIN        1     35       CYTOPLASMIC (POTENTIAL).
FT   TRANSMEM     36     56       SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
FT                                (POTENTIAL).
FT   DOMAIN       57    235       EXTRACELLULAR (POTENTIAL).
FT   SITE         79     80       CLEAVAGE (BY ADAM17) (BY SIMILARITY).

  Query Match             7.5%;  Score 109.5;  DB 1;  Length 235;
  Best Local Similarity   21.0%;  Pred. No. 0.041;
  Matches   51;  Conservative   48;  Mismatches   87;  Indels   57;  Gaps   11;

Qy         60 CLTVVSFYQVAALQGDLASLRAELQG-HHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPP 118
              ||:: ||  ||        |   : |    || | |         | : | |  |:
Db         32 CLSLFSFLLVAGATTLFCLLNFGVIGPQRDEKFPNG-----LPLISSMAQTLTLR----- 81

Qy        119 APGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSAL 178
                  :||||| :|          :: |: ::     :  |                :
Db         82 -----SSSQNSSDKPVAHVVANHQVEEQLEWLSQRANALLANG---------------M 120

Qy        179 EEKENKILVKETGYFFIYGQVLYTDK----TYAMGHLIQRKKVHVFGDELSLVTLFR--C 232
              : |:|:::|    | : :| |||:  :       : | : |  :  : ::::|::  :  |
Db        121 DLKDNQLVVPADGLYLVYSQVLFKGQGCPDYVLLTHTVSRFAIS-YQEKVNLLSAVKSPC 179

Qy        233 IQNMPETLP----NNSCYSAGIAKLEEGDEL--QLAIPR-----ENAQISLDGDVTFFGA 281
               :: ||           |  |: :||:||:|  :: :|:     |: |:        :||
Db        180 PKDTPEGAELKPWYEPIYLGGVFQLEKGDQLSAEVNLPKYLDFAESGQV-------YFGV 232

Qy        282 LKL 284
              : |
Db        233 IAL 235


RESULT 11
TNFA_BOVIN
ID   TNFA_BOVIN     STANDARD;      PRT;   233 AA.
AC   Q06599; O18779; Q27978;
DT   01-JUN-1994 (Rel. 29, Created)
DT   01-JUN-1994 (Rel. 29, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE   ligand superfamily member 2) (TNF-a) (Cachectin).
GN   TNF OR TNFSF2 OR TNFA.
OS   Bos taurus (Bovine).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Bovinae; Bos.
OX   NCBI_TaxID=9913;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=94083525; PubMed=8260599;
RA   Cludts I., Cleuter Y., Kettmann R., Burny A., Droogmans L.;
RT   "Cloning and characterization of the tandemly arranged bovine
RT   lymphotoxin and tumour necrosis factor-alpha genes.";
RL   Cytokine 5:336-341(1993).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Boran, and N'Dama;
RA   Iraqi F.;
RT   "Bovine TNF-alpha gene.";
RL   Submitted (JUL-1997) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   SEQUENCE FROM N.A.
RA   Ahn J.;
RL   Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   SEQUENCE OF 50-233 FROM N.A.
RC   TISSUE=Blood;
RX   MEDLINE=96006582; PubMed=7590981;
RA   Mertens B.E.L.C., Muriuki M., Gaidulis L.;
RT   "Cloning of two members of the TNF-superfamily in cattle: CD40 ligand
RT   and tumor necrosis factor alpha.";
RL   Immunogenetics 42:430-431(1995).
RN   [5]
RP   SEQUENCE OF 89-193 FROM N.A.
RC   STRAIN=Holstein;
RX   MEDLINE=97447737; PubMed=9303477;
RA   Dietz A.B., Neibergs H.L., Womack J.E., Kehrli M.E. Jr.;
RT   "Rapid communication: single strand conformational polymorphism (SSCP)
RT   of bovine tumor necrosis factor alpha.";
RL   J. Anim. Sci. 75:2567-2567(1997).
CC   -!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
CC       TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can
CC       induce cell death of certain tumor cell lines. It is potent
CC       pyrogen causing fever by direct action or by stimulation of
CC       interleukin 1 secretion and is implicated in the induction of
CC       cachexia, Under certain conditions it can stimulate cell
CC       proliferation and induce cell differentiation.
CC   -!- SUBUNIT: Homotrimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC       extracellular soluble form (By similarity).
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing (By similarity).
CC   -!- PTM: The membrane form, but not the soluble form, is
CC       phosphorylated on serine residues. Dephosphorylation of the
CC       membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
CC       similarity).
CC   -!- DISEASE: Cachexia accompanies a variety of diseases, including
CC       cancer and infection, and is characterized by general ill health
CC       and malnutrition.
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
```

```
DR   EMBL; Z14137; CAA78511.1; -.
DR   EMBL; AF011926; AAB84086.1; -.
DR   EMBL; AF348421; AAN76506.1; -.
DR   EMBL; AF011927; AAB84087.1; -.
DR   EMBL; Z48808; CAA88743.1; -.
DR   EMBL; U11040; AAA19573.1; ALT_SEQ.
DR   PIR; I46047; S24642.
DR   HSSP; P01375; 4TSV.
DR   InterPro; IPR006053; TNF_abc.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   InterPro; IPR003636; TNF_subf.
DR   Pfam; PF00229; TNF; 1.
DR   PRINTS; PR01234; TNECROSISFCT.
DR   ProDom; PD002012; TNF_subf; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Transmembrane; Signal-anchor; Phosphorylation; Polymorphism.
FT   CHAIN         1    233       TUMOR NECROSIS FACTOR, MEMBRANE FORM.
FT   CHAIN        77    233       TUMOR NECROSIS FACTOR, SOLUBLE FORM.
FT   DOMAIN        1     35       CYTOPLASMIC (POTENTIAL).
FT   TRANSMEM     36     56       SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
FT                                (POTENTIAL).
FT   DOMAIN       57    233       EXTRACELLULAR (POTENTIAL).
FT   SITE         76     77       CLEAVAGE (BY ADAM17) (BY SIMILARITY).
FT   MOD_RES       2      2       PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
FT   DISULFID    145    177       BY SIMILARITY.
FT   VARIANT      48     48       F -> C (IN STRAIN N'DAMA).
FT   CONFLICT     62     62       E -> EQ (IN REF. 3 AND 4).
FT   CONFLICT    113    113       M -> V (IN REF. 3).
FT   CONFLICT    166    166       K -> R (IN REF. 3).
SQ   SEQUENCE   233 AA;  25439 MW;  8AF55C002A9763B0 CRC64;

  Query Match             7.4%;  Score 108;  DB 1;  Length 233;
  Best Local Similarity   22.8%;  Pred. No. 0.054;
  Matches   56;  Conservative   42;  Mismatches   88;  Indels   60;  Gaps   12;

Qy         58 SC-CLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFE 116
              || ||:: ||  ||        |   : |   |: | |           |:: :
Db         29 SCLCLSLFSFLLVAGATTLFCLLHFGVIGPQREESPGG----------PSINS------ 71

Qy        117 PPAPGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGS 176
              |      :||| | ||                ::||  :|   :   ::   |::  |
Db         72 PLVQTLRSSSQASSNKPVA-----------HVVADINSPGQLRWWDSYANALMA--NGV 117

Qy        177 ALEEKENKILVKETGYFFIYGQVLYTDK-----TYAMGHLIQRKKVHVFGDELSLVTLFR 231
               ||  :|:::|   | : || |||:  :       : | | |  |  :  :::::  :
Db        118 KLE--DNQLVVPADGLYLIYSQVLFRGQGCPSTPLFLTHTISRIAVS-YQTKVNILSAIK 174

Qy        232 --CIQNMPETLP----NNSCYSAGIAKLEEGDELQLAIPRENAQISL-------DGDVTF 278
               | :  ||          |  |: :||:|| |       :|:|:|       :    :
Db        175 SPCHRETPEWAEAKPWYEPIYQGGVFQLEKGDRL-------SAEINLPDYLDYAESGQVY 227

Qy        279 FGALKL 284
              || : |
Db        228 FGIIAL 233


RESULT 12
TNFA_PERLE
ID   TNFA_PERLE     STANDARD;      PRT;   235 AA.
AC   P36939;
DT   01-JUN-1994 (Rel. 29, Created)
DT   01-JUN-1994 (Rel. 29, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE   ligand superfamily member 2) (TNF-a) (Cachectin).
GN   TNF OR TNFSF2 OR TNFA.
OS   Peromyscus leucopus (White-footed mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Sigmodontinae;
OC   Peromyscus.
OX   NCBI_TaxID=10041;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=92218012; PubMed=1348497;
RA   Crew M.D., Filipowsky M.E.;
RT   "Sequence of the tumor necrosis factor/cachectin (TNF) gene from
RT   Peromyscus leucopus (family Cricetidae).";
RL   Immunogenetics 35:351-353(1992).
CC   -!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
CC       TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can
CC       induce cell death of certain tumor cell lines. It is potent
CC       pyrogen causing fever by direct action or by stimulation of
CC       interleukin 1 secretion and is implicated in the induction of
CC       cachexia, Under certain conditions it can stimulate cell
CC       proliferation and induce cell differentiation.
CC   -!- SUBUNIT: Homotrimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC       extracellular soluble form (By similarity).
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing (By similarity).
CC   -!- PTM: The membrane form, but not the soluble form, is
CC       phosphorylated on serine residues. Dephosphorylation of the
CC       membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
CC       similarity).
CC   -!- DISEASE: Cachexia accompanies a variety of diseases, including
CC       cancer and infection, and is characterized by general ill health
CC       and malnutrition.
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; M59233; AAA40596.1; -.
DR   PIR; I54490; I54490.
DR   HSSP; P06804; 2TNF.
DR   InterPro; IPR006053; TNF_abc.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   InterPro; IPR003636; TNF_subf.
DR   Pfam; PF00229; TNF; 1.
DR   PRINTS; PR01234; TNECROSISFCT.
DR   ProDom; PD002012; TNF_subf; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Transmembrane; Signal-anchor; Phosphorylation.
FT   CHAIN         1    235       TUMOR NECROSIS FACTOR, MEMBRANE FORM.
FT   CHAIN        80    235       TUMOR NECROSIS FACTOR, SOLUBLE FORM.
FT   DOMAIN        1     35       CYTOPLASMIC (POTENTIAL).
FT   TRANSMEM     36     56       SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
FT                                (POTENTIAL).
FT   DOMAIN       57    235       EXTRACELLULAR (POTENTIAL).
FT   SITE         79     80       CLEAVAGE (BY ADAM17) (BY SIMILARITY).
FT   MOD_RES       2      2       PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
FT   DISULFID    148    179       BY SIMILARITY.
FT   CARBOHYD     86     86       N-LINKED (GLCNAC. . .) (POTENTIAL).
SQ   SEQUENCE   235 AA;  25822 MW;  235A5CFC9F9AC624 CRC64;

  Query Match             7.4%;  Score 107.5;  DB 1;  Length 235;
  Best Local Similarity   22.0%;  Pred. No. 0.061;
  Matches   54;  Conservative   46;  Mismatches   84;  Indels   61;  Gaps   14;

Qy         60 CLTVVSFYQVAALQGDLASLRAELQG-HHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPP 118
              ||:: ||  ||        |   : |    || |     |  |   : | |  |:
Db         32 CLSLFSFLLVAGATTLFCLLNFGVIGPQREEKFP--NNLPIIG---SMAQTLTLR----- 81

Qy        119 APGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSAL 178
                 :||||| :|        |         | :   : :|:   :        : :
```

```
Db         82 -----SSSQNSSDK--------PVAHVVANHQVDEQLEWLSRGANALL--------ANGM 120

Qy        179 EEKENKILVKETGYFFIYGQVLYTDK---TYA-MGHLIQRKKVHVFGDELSLVTLFRCIQ 234
              : |:|::::   | : :| |||:  :   :| : | : |  |  : |:::|::  :
Db        121 DLKDNQLVIPADGLYLVYSQVLFKGQGCSSYVLLTHTVSRFAVS-YEDKVNLLSAIK--S 177

Qy        235 NMPETLPNNS--------CYSAGIAKLEEGDEL--QLAIPR-----ENAQISLDGDVTFF 279
                :  | |          | |: :||:|| |  :: :|:     |: |:       :|
Db        178 PCPKETPEGSELKPWYEPIYLGGVFQLEKGDRLSAEVNLPKYLDFAESGQV-------YF 230

Qy        280 GALKL 284
                | : |
Db        231 GVIAL 235


RESULT 13
TNFA_PIG
ID   TNFA_PIG       STANDARD;      PRT;   232 AA.
AC   P23563;
DT   01-NOV-1991 (Rel. 20, Created)
DT   01-NOV-1991 (Rel. 20, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE   ligand superfamily member 2) (TNF-a) (Cachectin).
GN   TNF OR TNFSF2 OR TNFA.
OS   Sus scrofa (Pig).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX   NCBI_TaxID=9823;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=91016861; PubMed=2216741;
RA   Drews R.T., Coffee B.W., Prestwood A.K., McGraw R.A.;
RT   "Gene sequence of porcine tumor necrosis factor alpha.";
RL   Nucleic Acids Res. 18:5564-5564(1990).
RN   [2]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Liver;
RX   MEDLINE=91340150; PubMed=1874444;
RA   Kuhnert P., Wuethrich C., Peterhans E., Pauli U.;
RT   "The porcine tumor necrosis factor-encoding genes: sequence and
RT   comparative analysis.";
RL   Gene 102:171-178(1991).
RN   [3]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Macrophage;
RA   Choi C.S., Molitor T.W., Lin G.F., Murtaugh M.P.;
RT   "Complete nucleotide sequence of a cDNA encoding porcine tumor
RT   necrosis factor-alpha.";
RL   Anim. Biotechnol. 2:97-105(1991).
RN   [4]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Large white; TISSUE=Fibroblast;
RX   MEDLINE=21108615; PubMed=11169259;
RA   Chardon P., Rogel-Gaillard C., Cattolico L., Duprat S., Vaiman M.,
RA   Renard C.;
RT   "Sequence of the swine major histocompatibility complex region
RT   containing all non-classical class I genes.";
RL   Tissue Antigens 57:55-65(2001).
RN   [5]
RP   SEQUENCE OF 44-232 FROM N.A.
RX   MEDLINE=90034181; PubMed=2478420;
RA   Pauli U., Beutler B., Peterhans E.;
RT   "Porcine tumor necrosis factor alpha: cloning with the polymerase
RT   chain reaction and determination of the nucleotide sequence.";
RL   Gene 81:185-191(1989).
CC   -!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
CC       TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can
CC       induce cell death of certain tumor cell lines. It is potent
CC       pyrogen causing fever by direct action or by stimulation of
CC       interleukin 1 secretion and is implicated in the induction of
CC       cachexia, Under certain conditions it can stimulate cell
CC       proliferation and induce cell differentiation.
CC   -!- SUBUNIT: Homotrimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC       extracellular soluble form (By similarity).
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing (By similarity).
CC   -!- PTM: The membrane form, but not the soluble form, is
CC       phosphorylated on serine residues. Dephosphorylation of the
CC       membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
CC       similarity).
CC   -!- DISEASE: Cachexia accompanies a variety of diseases, including
CC       cancer and infection, and is characterized by general ill health
CC       and malnutrition.
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; X54001; CAA37949.1; -.
DR   EMBL; X54859; CAA38639.1; -.
DR   EMBL; X57321; CAA40591.1; -.
DR   EMBL; AJ251914; CAB63852.1; -.
DR   EMBL; M29079; AAA31128.1; -.
DR   PIR; S12606; S12606.
DR   HSSP; P01375; 4TSV.
DR   InterPro; IPR006053; TNF_abc.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   InterPro; IPR003636; TNF_subf.
DR   Pfam; PF00229; TNF; 1.
DR   PRINTS; PR01234; TNECROSISFCT.
DR   ProDom; PD002012; TNF_subf; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Transmembrane; Signal-anchor; Phosphorylation.
FT   CHAIN         1    232       TUMOR NECROSIS FACTOR, MEMBRANE FORM.
FT   CHAIN        77    232       TUMOR NECROSIS FACTOR, SOLUBLE FORM.
FT   DOMAIN        1     35       CYTOPLASMIC (POTENTIAL).
FT   TRANSMEM     36     56       SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
FT                                 (POTENTIAL).
FT   DOMAIN       57    232       EXTRACELLULAR (POTENTIAL).
FT   SITE         76     77       CLEAVAGE (BY ADAM17) (BY SIMILARITY).
FT   MOD_RES       2      2       PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
FT   DISULFID    144    176       BY SIMILARITY.
SQ   SEQUENCE   232 AA;  25254 MW;  65B28F702D99C8BE CRC64;

  Query Match             7.4%;  Score 107;  DB 1;  Length 232;
  Best Local Similarity  22.0%;  Pred. No. 0.066;
  Matches   54;  Conservative   40;  Mismatches   86;  Indels   66;  Gaps   11;

Qy         60 CLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPA 119
              ||:: ||  ||          |  |: |   |: |||                | | | |
Db         32 CLSLFSFLLVAGATTLFCLLHFEVIGPQKEEFPAGP---------------LSI-NPLA 74

Qy        120 PGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKR---GS 176
               |  :||| |          :: |      : |: :           : |   :      :
Db         75 QGLRSSSQTS---------DKPVAHVVANVKAEGQ-----------LQWQSGYANALLAN 114

Qy        177 ALEEKENKILVKETGYFFIYGQVLYTDK-----TYAMGHLIQRKKVHVFGDELSLVTLFR 231
              :: |:|:::|   | : || |||:  :       : | | |  |  :  :::|::  :
Db        115 GVKLKDNQLVVPTDGLYLIYSQVLFRGQGCPSTNVFLTHTISRIAVS-YQTKVNLLSAIK 173

Qy        232 --CIQNMPETLPNNSCYS----AGIAKLEEGDELQLAIPRENAQISL-------DGDVTF 278
                | :  ||       |      |: :||: | |       :|:|:|       :    :
Db        174 SPCQRETPEGAEAKPWYEPIYLGGVFQLEKDDRL-------SAEINLPDYLDFAESGQVY 226

Qy        279 FGALKL 284
                || : |
Db        227 FGVIAL 232
```

```
Db        227 FGIIAL 232


RESULT 14
TNFA_CAPHI
ID   TNFA_CAPHI     STANDARD;      PRT;   234 AA.
AC   P13296; Q28320; Q9MYZ2;
DT   01-JAN-1990 (Rel. 13, Created)
DT   28-FEB-2003 (Rel. 41, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE   ligand superfamily member 2) (TNF-a) (Cachectin).
GN   TNF OR TNFSF2 OR TNFA.
OS   Capra hircus (Goat).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovoidea;
OC   Bovidae; Caprinae; Capra.
OX   NCBI_TaxID=9925;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   TISSUE=Splenocyte;
RA   Takakura H., Mori Y., Tatsumi M.;
RT   "Molecular cloning of caprine TNF-alpha cDNA and its expression in
RT   E.coli and insect cells.";
RL   Submitted (JUL-1996) to the EMBL/GenBank/DDBJ databases.
RN   [2]
RP   SEQUENCE OF 41-234 FROM N.A.
RA   Goldstein I.M., Henner D., Talhouk A.;
RL   Submitted (MAR-1989) to the EMBL/GenBank/DDBJ databases.
RN   [3]
RP   SEQUENCE OF 44-234 FROM N.A.
RC   TISSUE=Ovarian follicle;
RA   Wang B., Zhang Y.;
RT   "Goat ovarian TNF alpha cDNA sequence.";
RL   Submitted (JUN-2000) to the EMBL/GenBank/DDBJ databases.
RN   [4]
RP   SEQUENCE OF 75-234 FROM N.A.
RC   TISSUE=Blood;
RA   Rimstad E.;
RL   Submitted (JAN-1994) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
CC       TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can
CC       induce cell death of certain tumor cell lines. It is potent
CC       pyrogen causing fever by direct action or by stimulation of
CC       interleukin 1 secretion and is implicated in the induction of
CC       cachexia, Under certain conditions it can stimulate cell
CC       proliferation and induce cell differentiation.
CC   -!- SUBUNIT: Homotrimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC       extracellular soluble form (By similarity).
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing (By similarity).
CC   -!- PTM: The membrane form, but not the soluble form, is
CC       phosphorylated on serine residues. Dephosphorylation of the
CC       membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
CC       similarity).
CC   -!- DISEASE: Cachexia accompanies a variety of diseases, including
CC       cancer and infection, and is characterized by general ill health
CC       and malnutrition.
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   -!- CAUTION: Ref.2 sequence differs from that shown due to a
CC       frameshift in position 60.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; D86587; BAA13130.1; -.
DR   EMBL; X14828; CAA32937.1; ALT_FRAME.
DR   EMBL; AF276985; AAF87741.1; -.
DR   EMBL; X77317; CAA54523.1; -.
DR   PIR; S06192; S06192.
DR   HSSP; P01375; 4TSV.
DR   InterPro; IPR006053; TNF_abc.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   InterPro; IPR003636; TNF_subf.
DR   Pfam; PF00229; TNF; 1.
DR   PRINTS; PR01234; TNECROSISFCT.
DR   ProDom; PD002012; TNF_subf; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Transmembrane; Signal-anchor; Phosphorylation.
FT   CHAIN         1    234       TUMOR NECROSIS FACTOR, MEMBRANE FORM.
FT   CHAIN        79    234       TUMOR NECROSIS FACTOR, SOLUBLE FORM.
FT   DOMAIN        1     35       CYTOPLASMIC (POTENTIAL).
FT   TRANSMEM     36     56       SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
FT                                (POTENTIAL).
FT   DOMAIN       57    233       EXTRACELLULAR (POTENTIAL).
FT   MOD_RES       2      2       PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
FT   SITE         78     79       CLEAVAGE (BY ADAM17) (BY SIMILARITY).
FT   DISULFID    146    178       BY SIMILARITY.
FT   CARBOHYD     96     96       N-LINKED (GLCNAC. . .) (POTENTIAL).
FT   CONFLICT     79     79       R -> S (IN REF. 4).
FT   CONFLICT    119    119       E -> A (IN REF. 4).
FT   CONFLICT    129    129       T -> N (IN REF. 4).
FT   CONFLICT    155    155       H -> Q (IN REF. 4).
FT   CONFLICT    164    164       Y -> D (IN REF. 4).
FT   CONFLICT    184    184       E -> EG (IN REF. 4).
FT   CONFLICT    185    185       MISSING (IN REF. 2).
FT   CONFLICT    215    215       Q -> L (IN REF. 3 AND 4).
SQ   SEQUENCE   234 AA;  25519 MW;  9768E33BBBABB041 CRC64;

  Query Match             7.3%;  Score 106.5;  DB 1;  Length 234;
  Best Local Similarity   22.2%;  Pred. No. 0.073;
  Matches   53;  Conservative   37;  Mismatches  104;  Indels   45;  Gaps    9;

Qy         58 SC-CLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFE 116
              || ||:: ||  ||         |   : |   |              |::|   ||
Db         29 SCWCLSLFSFLLVAGATTLFCLLHFGVIGPQRE------------EQSP---AGPSFNR 72

Qy        117 PPAPGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGS 176
              |      :||| | ||                ::|:   |   |   :     :  : :
Db         73 PLVQTLRSSSQASSNKPVA-----------HVVANISAP----GQLRWGDSYANALKAN 116

Qy        177 ALEEKENKILVKETGYFFIYGQVLY-----TDKTYAMGHLIQRKKVHVFGDELSLVTLFR 231
               :| |:|:::|   | : || |||:          : | | |   |  :  :::::  :
Db        117 GVELKDNQLVVPTDGLYLIYSQVLFRGHGCPSTPLFLTHTISRIAVS-YQTKVNILSAIK 175

Qy        232 --CIQNMPETLP----NNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKL 284
                 | :  ||           |  |: :||:|| |   | :       :    :|| : |
Db        176 SPCHRETPEGAEAKPWYEPIYQGGVFQLEKGDRLSAEINQPEYLDYAESGQVYFGIIAL 234


RESULT 15
TNFA_LAMGL
ID   TNFA_LAMGL     STANDARD;      PRT;   233 AA.
AC   P59694;
DT   10-OCT-2003 (Rel. 42, Created)
DT   10-OCT-2003 (Rel. 42, Last sequence update)
DT   10-OCT-2003 (Rel. 42, Last annotation update)
DE   Tumor necrosis factor precursor (TNF-alpha) (Tumor necrosis factor
DE   ligand superfamily member 2) (TNF-a) (Cachectin).
GN   TNF OR TNFSF2 OR TNFA.
OS   Lama glama (Llama).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Cetartiodactyla; Tylopoda; Camelidae; Lama.
OX   NCBI_TaxID=9844;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Raadan O., Lee S., Yoshida R., Chang K., Ohashi K., Sugimoto C.,
```

```
RA   Onuma M.;
RT   "Cloning and sequence analysis of cytokine cDNAs of llama and camel.";
RL   Submitted (APR-2003) to the EMBL/GenBank/DDBJ databases.
CC   -!- FUNCTION: Cytokine that binds to TNFRSF1A/TNFR1 and
CC       TNFRSF1B/TNFBR. It is mainly secreted by macrophages and can
CC       induce cell death of certain tumor cell lines. It is potent
CC       pyrogen causing fever by direct action or by stimulation of
CC       interleukin 1 secretion and is implicated in the induction of
CC       cachexia, Under certain conditions it can stimulate cell
CC       proliferation and induce cell differentiation (By similarity).
CC   -!- SUBUNIT: Homotrimer (By similarity).
CC   -!- SUBCELLULAR LOCATION: Type II membrane protein. Also exists as an
CC       extracellular soluble form (By similarity).
CC   -!- PTM: The soluble form derives from the membrane form by
CC       proteolytic processing (By similarity).
CC   -!- PTM: The membrane form, but not the soluble form, is
CC       phosphorylated on serine residues. Dephosphorylation of the
CC       membrane form ocurrs by binding to soluble TNFRSF1A/TNFR1 (By
CC       similarity).
CC   -!- SIMILARITY: Belongs to the tumor necrosis factor family.
CC   ---------------------------------------------------------------------
CC   This SWISS-PROT entry is copyright. It is produced through a collaboration
CC   between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC   the European Bioinformatics Institute. There are no restrictions on its
CC   use by non-profit institutions as long as its content is in no way
CC   modified and this statement is not removed. Usage by and for commercial
CC   entities requires a license agreement (See http://www.isb-sib.ch/announce/
CC   or send an email to license@isb-sib.ch).
CC   ---------------------------------------------------------------------
DR   EMBL; AB107646; BAC75383.1; -.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   InterPro; IPR003636; TNF_subf.
DR   Pfam; PF00229; TNF; 1.
DR   ProDom; PD002012; TNF_subf; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
KW   Cytokine; Transmembrane; Signal-anchor; Phosphorylation.
FT   CHAIN         1    233       TUMOR NECROSIS FACTOR, MEMBRANE FORM (BY
FT                                SIMILARITY).
FT   CHAIN        77    233       TUMOR NECROSIS FACTOR, SOLUBLE FORM (BY
FT                                SIMILARITY).
FT   DOMAIN        1     34       CYTOPLASMIC (POTENTIAL).
FT   TRANSMEM     35     57       SIGNAL-ANCHOR (TYPE-II MEMBRANE PROTEIN)
FT                                (BY SIMILARITY).
FT   DOMAIN       58    233       EXTRACELLULAR (POTENTIAL).
FT   MOD_RES       2      2       PHOSPHORYLATION (BY CK1) (BY SIMILARITY).
FT   SITE         76     77       CLEAVAGE (BY ADAM17) (BY SIMILARITY).
FT   DISULFID    145    177       BY SIMILARITY.
SQ   SEQUENCE   233 AA;  25437 MW;  F5C07837505FBD86 CRC64;

  Query Match             7.3%;  Score 105.5;  DB 1;  Length 233;
  Best Local Similarity   22.2%;  Pred. No. 0.089;
  Matches   53;  Conservative   34;  Mismatches  101;  Indels   51;  Gaps    8;

Qy         60 CLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPA 119
              ||:: ||  ||         |   : |   |:|                ||:|  | |
Db         32 CLSLFSFLLVAGATTLFCLLHFGVIGPQKEEL----------------LTGLQIMNPLA 74

Qy        120 PGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKR---GS 176
                 :||| ||:|       :   |  ||                |   |     :
Db         75 QTLRSSSQASRDKPVAHVVADPAAQGQLQ----------------WEKRFANTLLAN 115

Qy        177 ALEEKENKILVKETGYFFIYGQVLYTDK-----TYAMGHLIQRKKVHVFGDELSLVTLFR 231
                :: ::|:::|   | : || |||:: :       : | | |  |  : :: :|::  :
Db        116 GVKLEDNQLVVPTDGLYLIYSQVLFSGQRCPSTPVFLTHTISRLAVS-YPNKANLLSAIK 174

Qy        232 --C---IQNMPETLP-NNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKL 284
                 |       |  |     |  |: :||: | |   |   |     :    :|| : |
Db        175 SPCQGGTSEEAEAKPWYEPIYLGGVFQLEKDDRLSAEINMPNYLDFAESGQVYFGIIAL 233
```

Search completed: August 25, 2004, 14:39:28
Job time : 15.3939 secs

This Page Blank (uspto)

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: August 25, 2004, 14:32:58 ; Search time 71.9697 Seconds
(without alignments)
1249.452 Million cell updates/sec

Title: US-09-911-777B-1
Perfect score: 1451
Sequence: 1 MDDSTEREQSRLTSCLKKRE.....ENAQISLDGDVTFFGALKLL 285

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1017041 seqs, 315518202 residues

Total number of hits satisfying chosen parameters: 1017041

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : SPTREMBL_25:*
1: sp_archea:*
2: sp_bacteria:*
3: sp_fungi:*
4: sp_human:*
5: sp_invertebrate:*
6: sp_mammal:*
7: sp_mhc:*
8: sp_organelle:*
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebrate:*
14: sp_unclassified:*
15: sp_rvirus:*
16: sp_bacteriap:*
17: sp_archeap:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1335.5	92.0	266	4	Q7Z5J2	Q7z5j2 homo sapien
2	1069	73.7	208	4	Q8IZI6	Q8izi6 homo sapien
3	897	61.8	174	4	Q8IZI5	Q8izi5 homo sapien
4	862.5	59.4	258	11	Q8BZM8	Q8bzm8 mus musculu
5	833.5	57.4	290	11	Q7TQ58	Q7tq58 mus musculu
6	812	56.0	158	4	Q8IZI4	Q8izi4 homo sapien
7	708	48.8	288	13	Q8JHJ4	Q8jhj4 gallus gall
8	339	23.4	199	11	Q8BWP2	Q8bwp2 mus musculu
9	336	23.2	194	11	Q8BVA3	Q8bva3 mus musculu
10	247.5	17.1	410	11	Q8BXS2	Q8bxs2 mus musculu
11	244.5	16.9	250	4	Q8NFH7	Q8nfh7 homo sapien
12	235.5	16.2	330	4	Q8IZK7	Q8izk7 homo sapien
13	109	7.5	261	5	Q8MRW2	Q8mrw2 drosophila
14	109	7.5	325	5	Q9V5G2	Q9v5g2 drosophila
15	109	7.5	415	5	Q8MUJ1	Q8muj1 drosophila
16	106.5	7.3	252	11	Q8K3Y8	Q8k3y8 mus musculu
17	105.5	7.3	252	11	Q80YZ0	Q80yz0 mus musculu
18	104.5	7.2	255	13	Q9DEP9	Q9dep9 oncorhynchu
19	102	7.0	287	13	Q90WT9	Q90wt9 gallus gall
20	102	7.0	409	5	Q8MY88	Q8my88 drosophila
21	101	7.0	409	5	Q8IGD3	Q8igd3 drosophila
22	100.5	6.9	205	4	Q8N4C3	Q8n4c3 homo sapien
23	99.5	6.9	217	6	Q9BEF4	Q9bef4 cabassous u
24	99.5	6.9	420	16	Q7U945	Q7u945 synechococc
25	99	6.8	251	4	Q8NFE9	Q8nfe9 homo sapien
26	98	6.8	255	13	Q9I8I0	Q9i8i0 salvelinus
27	97.5	6.7	1596	13	Q9I8E1	Q9i8e1 fugu rubrip
28	97	6.7	217	11	Q9ERG6	Q9erg6 peromyscus
29	95.5	6.6	252	11	Q8K3Y7	Q8k3y7 rattus norv
30	95	6.5	289	17	Q8TVG6	Q8tvg6 methanopyru
31	94.5	6.5	215	11	Q99ND1	Q99nd1 tamiasciuru
32	94.5	6.5	237	13	Q8AWC9	Q8awc9 cyprinus ca
33	94.5	6.5	246	13	Q9I976	Q9i976 oncorhynchu
34	94.5	6.5	246	13	Q9I970	Q9i970 oncorhynchu
35	94.5	6.5	347	16	Q9RXM2	Q9rxm2 deinococcus
36	94	6.5	820	4	Q86T35	Q86t35 homo sapien
37	94	6.5	1068	4	Q86T58	Q86t58 homo sapien
38	94	6.5	1264	4	Q86T45	Q86t45 homo sapien
39	94	6.5	1308	4	Q86TA9	Q86ta9 homo sapien
40	94	6.5	1337	4	Q86T43	Q86t43 homo sapien
41	94	6.5	1340	4	Q86T50	Q86t50 homo sapien
42	94	6.5	1695	5	Q9NK53	Q9nk53 drosophila
43	94	6.5	1711	5	Q9VJL0	Q9vjl0 drosophila
44	94	6.5	1883	4	Q9H2Y7	Q9h2y7 homo sapien
45	93.5	6.4	214	6	Q9BEF3	Q9bef3 didelphis m

ALIGNMENTS

RESULT 1
Q7Z5J2
ID Q7Z5J2 PRELIMINARY; PRT; 266 AA.
AC Q7Z5J2;
DT 01-OCT-2003 (TrEMBLrel. 25, Created)
DT 01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT 01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE Delta BAFF.
GN TNFSF13B.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RA Gavin A.L., Ait-Azzouzene D., Ware C.F., Nemazee D.;
RT "Immunobiology of Delta BAFF.";
RL Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
DR EMBL; AY302751; AAP83164.1; -.
SQ SEQUENCE 266 AA; 29137 MW; 6BD06F90061152C6 CRC64;

Query Match 92.0%; Score 1335.5; DB 4; Length 266;
Best Local Similarity 93.3%; Pred. No. 4.2e-118;
Matches 266; Conservative 0; Mismatches 0; Indels 19; Gaps 1;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||                    ||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEET------------------GSYTFVPWLLSFKRGSALEE 161

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
```

```
Db        162 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 221

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        222 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 266


RESULT 2
Q8IZI6
ID   Q8IZI6      PRELIMINARY;      PRT;   208 AA.
AC   Q8IZI6;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   B-lymphocyte stimulator (Fragment).
GN   TNFSF13B.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Gao H., He F., Li R.;
RL   Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY129226; AAN08422.1; -.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0005164; F:tumor necrosis factor receptor binding; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   PROSITE; PS50049; TNF_2; 1.
FT   NON_TER       1       1
SQ   SEQUENCE   208 AA;  22767 MW;  EEA31D227033AA53 CRC64;

  Query Match             73.7%;  Score 1069;  DB 4;  Length 208;
  Best Local Similarity   99.5%;  Pred. No. 5.3e-93;
  Matches  207;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy         78 SLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAPGEGNSSQNSRNKRAVQG 137
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 SLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAPGEGNSSQNSRNKRAVQG 60

Qy        138 PEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEEKENKILVKETGYFFIYG 197
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 PEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEEKENKILVKETGYFFIYG 120

Qy        198 QVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETLPNNSCYSAGIAKLEEGD 257
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 QVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETLPNNSCYSAGIAKLEEGD 180

Qy        258 ELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||| ||||||||||||||||||||||||
Db        181 ELQLTIPRENAQISLDGDVTFFGALKLL 208


RESULT 3
Q8IZI5
ID   Q8IZI5      PRELIMINARY;      PRT;   174 AA.
AC   Q8IZI5;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   B-lymphocyte stimulator (Fragment).
GN   TNFSF13B.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   He F., Gao H., Li R.;
RL   Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY129227; AAN08423.1; -.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0005164; F:tumor necrosis factor receptor binding; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   PROSITE; PS50049; TNF_2; 1.
FT   NON_TER       1       1
SQ   SEQUENCE   174 AA;  19479 MW;  1AEBD4F2862EB3E0 CRC64;

  Query Match             61.8%;  Score 897;  DB 4;  Length 174;
  Best Local Similarity   99.4%;  Pred. No. 8.1e-77;
  Matches  173;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        112 LKIFEPPAPGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLS 171
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 LKIFEPPAPGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLS 60

Qy        172 FKRGSALEEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFR 231
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 FKRGSALEEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFR 120

Qy        232 CIQNMPETLPNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||| ||||||||||||||||||||||||||
Db        121 CIQNMPETLPNNSCYSAGIAKLEEGDELQLTIPRENAQISLDGDVTFFGALKLL 174


RESULT 4
Q8BZM8
ID   Q8BZM8      PRELIMINARY;      PRT;   258 AA.
AC   Q8BZM8;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Tumor necrosis factor (Fragment).
GN   TNFSF13B.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Diencephalon;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AK034121; BAC28593.1; -.
DR   MGD; MGI:1344376; Tnfsf13b.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0005164; F:tumor necrosis factor receptor binding; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   PROSITE; PS50049; TNF_2; 1.
FT   NON_TER       1       1
SQ   SEQUENCE   258 AA;  28604 MW;  E6431FE93E782810 CRC64;

  Query Match             59.4%;  Score 862.5;  DB 11;  Length 258;
  Best Local Similarity   65.0%;  Pred. No. 2.6e-73;
  Matches  173;  Conservative   24;  Mismatches   30;  Indels   39;  Gaps    2;

Qy         51 TLLLALLSCCLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTA 110
              ||||||||    | :| ||:|||| || :|| ||| :     || ||||:        :||
Db          1 TLLLALLSSSFTAMSLYQLAALQADLMNLRMELQSYRGSATPAAAGAPE--------LTA 52

Qy        111 GLKIFEPPAPGEGNSSQNSRNKRAVQGPEET---------------------------- 141
              |:|:  | ||   |||:  ||:|| ||||||
Db         53 GVKLLTPAAPRPHNSSRGHRNRRAFQGPEETEQDVDLSAPPAPCLPGCRHSQHDDNGMNL 112

Qy        142 --VTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEEKENKILVKETGYFFIYGQV 199
                : |||||||||:||||:||:|||||||||||||:|||||||:|::||||||| ||
```

```
Db        113 RNIIQDCLQLIADSDTPTIRKGTYTFVPWLLSFKRGNALEEKENKIVVRQTGYFFIYSQV 172

Qy        200 LYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETLPNNSCYSAGIAKLEEGDEL 259
              ||||  :||||:||||||||||||||||||||||||||:|||||||||||||:||||||:
Db        173 LYTDPIFAMGHVIQRKKVHVFGDELSLVTLFRCIQNMPKTLPNNSCYSAGIARLEEGDEI 232

Qy        260 QLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||| :|| |||||||||
Db        233 QLAIPRENAQISRNGDDTFFGALKLL 258


RESULT 5
Q7TQ58
ID   Q7TQ58      PRELIMINARY;      PRT;   290 AA.
AC   Q7TQ58;
DT   01-OCT-2003 (TrEMBLrel. 25, Created)
DT   01-OCT-2003 (TrEMBLrel. 25, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Delta BAFF.
GN   TNFSF13B.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=BALB/c;
RA   Gavin A.L., Ait-Azzouzene D., Ware C.F., Nemazee D.;
RT   "Delta BAFF, an isoform of BAFF, regulates BAFF function.";
RL   Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY290823; AAP82036.1; -.
SQ   SEQUENCE   290 AA;  32165 MW;  BC289F9FF8187C9C CRC64;

  Query Match             57.4%;  Score 833.5;  DB 11;  Length 290;
  Best Local Similarity   60.0%;  Pred. No. 1.7e-70;
  Matches  180;  Conservative   32;  Mismatches   63;  Indels   25;  Gaps    6;

Qy          1 MDDSTER-EQSRLTSCLKKREEMKLKECVSILPRKESPS-VRSSKDGKLLAATLLLALLS 58
              ||:| :      |  | :| |:||:     | |:||  :     :||:||||||||||||
Db          1 MDESAKTLPPPCLCFCSEKGEDMKV-GYDPITPQKEEGAWFGICRDGRLLAATLLLALLS 59

Qy         59 CCLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPP 118
                | :| ||:|||| || :|| ||| :     || ||||:        :|||:|:  |
Db         60 SSFTAMSLYQLAALQADLMNLRMELQSYRGSATPAAAGAPE--------LTAGVKLLTPA 111

Qy        119 APGEGNSSQNSRNKRAVQGPEETVTQD----------CLQLIADSETPTIQKGSYTF 165
              ||   |||:  ||:|| |||||  ||              |     |     ::  :|||
Db        112 APRPHNSSRGHRNRRAFQGPEET-EQDVDLSAPPAPCLPGCRHSQHDDNGMNLRNRTYTF 170

Qy        166 VPWLLSFKRGSALEEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELS 225
              ||||||||||:|||||||||:|::|||||| ||||||  :||||:|||||||||||||||
Db        171 VPWLLSFKRGNALEEKENKIVVRQTGYFFIYSQVLYTDPIFAMGHVIQRKKVHVFGDELS 230

Qy        226 LVTLFRCIQNMPETLPNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||:|||||||||||||:||||||:|||||||||||| :|| |||||||||
Db        231 LVTLFRCIQNMPKTLPNNSCYSAGIARLEEGDEIQLAIPRENAQISRNGDDTFFGALKLL 290


RESULT 6
Q8IZI4
ID   Q8IZI4      PRELIMINARY;      PRT;   158 AA.
AC   Q8IZI4;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   B-lymphocyte stimulator (Fragment).
GN   TNFSF13B.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   He F., Gao H., Li R.;
RL   Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY129228; AAN08424.1; -.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0005164; F:tumor necrosis factor receptor binding; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   PROSITE; PS50049; TNF_2; 1.
FT   NON_TER      1      1
SQ   SEQUENCE   158 AA;  17826 MW;  8346BCC0D333DCAB CRC64;

  Query Match             56.0%;  Score 812;  DB 4;  Length 158;
  Best Local Similarity   99.4%;  Pred. No. 8e-69;
  Matches  157;  Conservative    0;  Mismatches    1;  Indels    0;  Gaps    0;

Qy        128 NSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEEKENKILV 187
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 NSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEEKENKILV 60

Qy        188 KETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETLPNNSCYS 247
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 KETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETLPNNSCYS 120

Qy        248 AGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              ||||||||||||| ||||||||||||||||||||||||
Db        121 AGIAKLEEGDELQLTIPRENAQISLDGDVTFFGALKLL 158


RESULT 7
Q8JHJ4
ID   Q8JHJ4      PRELIMINARY;      PRT;   288 AA.
AC   Q8JHJ4;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   TNF family B cell activation factor.
GN   BAFF.
OS   Gallus gallus (Chicken).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC   Gallus.
OX   NCBI_TaxID=9031;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Schneider K., Kolthow S., Schneider P., Goebel T., Kaspers B.,
RA   Staeheli P.;
RT   "A chicken homolog of the B cell activating factor of the TNF family
RT   (BAFF).";
RL   Submitted (OCT-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF506010; AAM90951.2; -.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0005164; F:tumor necrosis factor receptor binding; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   PROSITE; PS50049; TNF_2; 1.
SQ   SEQUENCE   288 AA;  31629 MW;  8E2F291D2495BB79 CRC64;

  Query Match             48.8%;  Score 708;  DB 13;  Length 288;
  Best Local Similarity   52.1%;  Pred. No. 1.3e-58;
  Matches  152;  Conservative   39;  Mismatches   69;  Indels   32;  Gaps    5;

Qy         22 MKLKECVSILPRKESPSVRSSKDGKLLAATLLLA--------LLSCCLTVVSFYQVAALQ 73
               ||  :|| :: :|:: |  |     |    | | :        ||| ||  || |    |:
Db          1 MKSVDCVHVIQQKDTASSPSGPPGAASGTTGLFSVTFLWLAMLLSSCLAAVSLYHAITLK 60

Qy         74 GDLASLRAEL-----QGHHAEKLPAGAGAPKAGLEEAPAVTAGLKI----------FEPP 118
                 :| :||:||          |: |   |  |||     :|:: |::          |
Db         61 TELEALRSELIYRVRARSPLEQPPVSPGDKKAG----ASVSSFLQVSAAGARQENRLPGP 116

Qy        119 APGEGNSSQ-----NSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFK 173
               :| |   ::      :| :|::   |||| | |||||||::   ||   : ||||||||
```

```
Db        117 SPAESFQTEIWDRNRNRGRRSIVNAEETVLQACLQLIADSKSDIQQKDDSSIVPWLLSFK 176

Qy        174 RGSALEEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCI 233
              ||:||||: |||::||||||||||||||||| |:|||||||| |||||:|||||||||
Db        177 RGTALEEQGNKIVIKETGYFFIYGQVLYTDTTFAMGHLIQRKKAHVFGDDLSLVTLFRCI 236

Qy        234 QNMPETLPNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              ||||:: |||||||:|||||||||||||| |||  |:|||||| |||||::||
Db        237 QNMPQSYPNNSCYTAGIAKLEEGDELQLTIPRRRAKISLDGDGTFFGAVRLL 288


RESULT 8
Q8BWP2
ID   Q8BWP2      PRELIMINARY;      PRT;   199 AA.
AC   Q8BWP2;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Tumor necrosis factor.
GN   TNFSF13B.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Liver;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AK050384; BAC34225.1; -.
DR   MGD; MGI:1344376; Tnfsf13b.
SQ   SEQUENCE   199 AA;  21654 MW;  39392021D4EFD320 CRC64;

  Query Match             23.4%;  Score 339;  DB 11;  Length 199;
  Best Local Similarity   43.6%;  Pred. No. 7.2e-24;
  Matches   85;  Conservative   22;  Mismatches   46;  Indels   42;  Gaps    5;

Qy          1 MDDSTER-EQSRLTSCLKKREEMKLKECVSILPRKESPS-VRSSKDGKLLAATLLLALLS 58
              ||:| :      |  | :| |:||:     | |:||  :     :||:|||||||||||
Db          1 MDESAKTLPPPCLCFCSEKGEDMKV-GYDPITPQKEEGAWFGICRDGRLLAATLLLALLS 59

Qy         59 CCLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPP 118
                | :| ||:|||| || :|| ||| :     || ||||:        :|||:|:  |
Db         60 SSFTAMSLYQLAALQADLMNLRMELQSYRGSATPAAAGAPE--------LTAGVKLLTPA 111

Qy        119 APGEGNSSQNSRNKRAVQGPEET------------------------------VTQDCL 147
              ||   |||:  ||:|| ||||||                              : ||||
Db        112 APRPHNSSRGHRNRRAFQGPEETEQDVDLSAPPAPCLPGCRHSQHDDNGMNLRNIIQDCL 171

Qy        148 QLIADSETPTIQKGS 162
              ||||||:||||:|||
Db        172 QLIADSDTPTIRKGS 186


RESULT 9
Q8BVA3
ID   Q8BVA3      PRELIMINARY;      PRT;   194 AA.
AC   Q8BVA3;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
DE   Tumor necrosis factor.
GN   TNFSF13B.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Urinary bladder;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AK079180; BAC37571.1; -.
DR   MGD; MGI:1344376; Tnfsf13b.
SQ   SEQUENCE   194 AA;  20961 MW;  85FCF3495B138377 CRC64;

  Query Match             23.2%;  Score 336;  DB 11;  Length 194;
  Best Local Similarity   43.1%;  Pred. No. 1.3e-23;
  Matches   84;  Conservative   23;  Mismatches   46;  Indels   42;  Gaps    5;

Qy          1 MDDSTER-EQSRLTSCLKKREEMKLKECVSILPRKESPS-VRSSKDGKLLAATLLLALLS 58
              ||:| :      |  | :| |:||:     | |:||  :     :||:|||||||||||
Db          1 MDESAKTLPPPCLCFCSEKGEDMKV-GYDPITPQKEEGAWFGICRDGRLLAATLLLALLS 59

Qy         59 CCLTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPP 118
                | :| ||:|||| || :|| ||| :     || ||||:        :|||:|:  |
Db         60 SSFTAMSLYQLAALQADLMNLRMELQSYRGSATPAAAGAPE--------LTAGVKLLTPA 111

Qy        119 APGEGNSSQNSRNKRAVQGPEET------------------------------VTQDCL 147
              ||   |||:  ||:|| ||||||                              : ||||
Db        112 APRPHNSSRGHRNRRAFQGPEETEQDVDLSAPPAPCLPGCRHSQHDDNGMNLRNIIQDCL 171

Qy        148 QLIADSETPTIQKGS 162
              ||||||:||||:|||
Db        172 QLIADSDTPTIRKGS 186


RESULT 10
Q8BXS2
ID   Q8BXS2      PRELIMINARY;      PRT;   410 AA.
AC   Q8BXS2;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Tumor necrosis factor.
OS   Mus musculus (Mouse).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX   NCBI_TaxID=10090;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=C57BL/6J; TISSUE=Retina;
RX   MEDLINE=22354683; PubMed=12466851;
RA   The FANTOM Consortium,
RA   the RIKEN Genome Exploration Research Group Phase I & II Team;
RT   "Analysis of the mouse transcriptome based on functional annotation of
RT   60,770 full-length cDNAs.";
RL   Nature 420:563-573(2002).
DR   EMBL; AK044387; BAC31897.1; -.
DR   PIR; PT0714; PT0714.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0005164; F:tumor necrosis factor receptor binding; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   SMART; SM00207; TNF; 2.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 2.
SQ   SEQUENCE   410 AA;  45881 MW;  590A4B74C33FB8D4 CRC64;

  Query Match             17.1%;  Score 247.5;  DB 11;  Length 410;
  Best Local Similarity   31.6%;  Pred. No. 9.5e-15;
  Matches   74;  Conservative   35;  Mismatches   78;  Indels   47;  Gaps    8;

Qy         68 QVAALQGDLASLRAELQGHHAEKLPAGAGAPKAG-------LEEAPAVTAGLKIFEPPAP 120
              |:   | :| ||| |:    :    :|  : | |        |::| |    |
Db        207 QLRLCQTELQSLRREV----SRLQRSGGPSQKQGERPWQSLWEQSPDVLEAWK------- 255
```

```
Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLI-------ADSETPTIQKGSYTFVPWLLSFK 173
                  || :|||   :      | |:       |||:         | | |    :
Db        256 ----DGAKSRRRRAVLTQKHKKKHSVLHLVPVNITSKADSDV--------TEVMWQPVLR 303

Qy        174 RGSALEEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCI 233
              ||  || : : | :|| : :| ||||: | |: || :: |:       :    ||||||
Db        304 RGRGLEAQGDIVRVWDTGIYLLYSQVLFHDVTFTMGQVVSRE------GQGRRETLFRCI 357

Qy        234 QNMPETLPN---NSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKL 284
              ::||   |:   |||||||:  | :|| : : ||| ||::||    || | :||
Db        358 RSMPSD-PDRAYNSCYSAGVFHLHQGDIITVKIPRANAKLSLSPHGTFLGFVKL 410


RESULT 11
Q8NFH7
ID   Q8NFH7      PRELIMINARY;      PRT;   250 AA.
AC   Q8NFH7;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Proliferation-inducing ligand APRIL.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Koyama T., Tsukamoto H., Masumoto K., Himeji D., Hayashi K.,
RA   Harada M., Horiuchi T.;
RT   "Genomic structure of APRIL, a proliferation-inducing ligand.";
RL   Submitted (MAY-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AF513501; AAM47279.1; -.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0005164; F:tumor necrosis factor receptor binding; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   Pfam; PF00229; TNF; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
SQ   SEQUENCE   250 AA;  27453 MW;  AE1E4FDEFD578898 CRC64;

  Query Match             16.9%;  Score 244.5;  DB 4;  Length 250;
  Best Local Similarity   29.7%;  Pred. No. 9e-15;
  Matches   70;  Conservative   47;  Mismatches   90;  Indels   29;  Gaps    8;

Qy         54 LALLSCCLTVVSFYQVAALQGDLASLRAELQGHHAEKLPA--GAGAPKAGLEEAPAVTAG 111
              |  ::| : :::       | :| ||| |:         |:  | | |  ~| |    :
Db         39 LGAVACAMALLT------QQTELQSLRREVSRLQGTGGPSQNGEGYPWQSLPEQS--SDA 90

Qy        112 LKIFEPPPAPGEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLS 171
              |: :|      : : || :|||   ::      | |:  : | :       | | |  :
Db         91 LEAWE--------NGERSRKRRAVLTQKQKKQHSVLHLVPINAT-SKDDSDVTEVMWQPA 141

Qy        172 FKRGSALEEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFR 231
              :||  |: :   : ::: | : :| |||: | |: || :: |:      ::    ||||
Db        142 LRRGRGLQAQGYGVRIQDAGVYLLYSQVLFQDVTFTMGQVVSRE------GQGRQETLFR 195

Qy        232 CIQNMPETLPN---NSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKL 284
              ||::|| : |:   |||||||:  | :|| | : |||  |:::|    || | :||
Db        196 CIRSMP-SHPDRAYNSCYSAGVFHLHQGDILSVIIPRARAKLNLSPHGTFLGFVKL 250


RESULT 12
Q8IZK7
ID   Q8IZK7      PRELIMINARY;      PRT;   330 AA.
AC   Q8IZK7;
DT   01-MAR-2003 (TrEMBLrel. 23, Created)
DT   01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   TWE-PRIL.
OS   Homo sapiens (Human).
OC   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC   Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX   NCBI_TaxID=9606;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22299924; PubMed=12411489;
RA   Pradet-Balade B., Medema J.P., Lopez-Fraga M., Lozano J.C.,
RA   Kolfschoten G.M., Picard A., Martinez-A C., Garcia-Sanz J.A.,
RA   Hahne M.;
RT   "An endogenous hybrid mRNA encodes TWE-PRIL, a functional cell surface
RT   TWEAK-APRIL fusion protein.";
RL   EMBO J. 21:5711-5720(2002).
DR   EMBL; AY081051; AAL90443.1; -.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0005164; F:tumor necrosis factor receptor binding; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   Pfam; PF00229; TNF; 1.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 2.
SQ   SEQUENCE   330 AA;  36588 MW;  FC6F3BCA29C029AE CRC64;

  Query Match             16.2%;  Score 235.5;  DB 4;  Length 330;
  Best Local Similarity   26.3%;  Pred. No. 9.5e-14;
  Matches   73;  Conservative   45;  Mismatches  101;  Indels   59;  Gaps    8;

Qy         30 ILPRKESPSVRSSKDGKLLAATLLLALLSCCLTVVSFYQVAALQGDLASLRAELQGHHAE 89
              : ||: :|  | ::  : :||                |:|    |             :
Db         89 VRPRRSAPKGRKTRARRAIAA--------------HYEVHPRPGQ-------------D 120

Qy         90 KLPAGAGAPKAGLEEAP----------------AVTAGLKIF---EPPAPGEGNSSQNS 129
                ||      :| |||                |||          |     : : |
Db        121 GAQAGVDGTVSGWEEARINSSSPLRYNRQIGEFIVTRAGLYYLYCQSSDALEAWENGERS 180

Qy        130 RNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEEKENKILVKE 189
              | :|||   ::      | |:  : | :       | | |  : :||  |: :   : :::
Db        181 RKRRAVLTQKQKKQHSVLHLVPINAT-SKDDSDVTEVMWQPALRRGRGLQAQGYGVRIQD 239

Qy        190 TGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETLPN---NSCY 246
              | : :| |||: | |: || :: |:      :   |||||::|| : |:   ||||
Db        240 AGVYLLYSQVLFQDVTFTMGQVVSRE------GQGRQETLFRCIRSMP-SHPDRAYNSCY 292

Qy        247 SAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKL 284
              |||:  | :|| | : |||  |:::|    || | :||
Db        293 SAGVFHLHQGDILSVIIPRARAKLNLSPHGTFLGFVKL 330


RESULT 13
Q8MRW2
ID   Q8MRW2      PRELIMINARY;      PRT;   261 AA.
AC   Q8MRW2;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   SD18286p.
GN   EIGER OR CG12919.
OS   Drosophila melanogaster (Fruit fly).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC   Ephydroidea; Drosophilidae; Drosophila.
OX   NCBI_TaxID=7227;
RN   [1]
RP   SEQUENCE FROM N.A.
RA   Stapleton M., Brokstein P., Hong L., Agbayani A., Carlson J.,
RA   Champe M., Chavez C., Dorsett V., Dresnek D., Farfan D., Frise E.,
RA   George R., Gonzalez M., Guarin H., Kronmiller B., Li P., Liao G.,
RA   Miranda A., Mungall C.J., Nunoo J., Pacleb J., Paragas V., Park S.,
RA   Patel S., Phouanenavong S., Wan K., Yu C., Lewis S.E., Rubin G.M.,
RA   Celniker S.;
RL   Submitted (JUN-2002) to the EMBL/GenBank/DDBJ databases.
DR   EMBL; AY119233; AAM51093.1; -.
```

```
DR   FlyBase; FBgn0033483; eiger.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0005164; F:tumor necrosis factor receptor binding; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
SQ   SEQUENCE   261 AA;  29780 MW;  13B6D5A04EC9122C CRC64;

  Query Match             7.5%;  Score 109;  DB 5;  Length 261;
  Best Local Similarity   20.9%;  Pred. No. 0.066;
  Matches   50;  Conservative   44;  Mismatches   79;  Indels   66;  Gaps   11;

Qy         76 LASLRAE---LQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAPGEGNSSQNSRNK 132
              :| :| |   :||:| |             |:|  :  |  |  | |||       :||::
Db         59 IADVRNEEQNIQGNHTE-----------LQEKSSNEATSK--ESPAPLHHRRRMHSRHR 104

Qy        133 RAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKR---GSA------------ 177
               :   |::      | | ||      |    : || :|   ||
Db        105 HLLVRKGESL------LSARSE------DSRPAAHFHLSSRRRHQGSMGYHGDMYIGNDN 152

Qy        178 --------LEEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTL 229
                     : ::  : |  || :::| |: | :     | :: :      ||
Db        153 ERNSYQGHFQTRDGVLTVTNTGLYYVYAQICYNNSHDQNGFIVFQ------GD----TPF 202

Qy        230 FRCIQNMPETLPN--NSCYSAGIAKLEEGDELQLAIPR--ENAQISLDGDVTFFGALKL 284
              :|:  :|  :|:  ::|:::|:  ||  : : |       || :   : ::||  |:
Db        203 LQCLNTVPTNMPHKVHTCHTSGLIHLERNERIHLKDIHNDRNAVLREGNNRSYFGIFKV 261


RESULT 14
Q9V5G2
ID   Q9V5G2      PRELIMINARY;      PRT;   325 AA.
AC   Q9V5G2;
DT   01-MAY-2000 (TrEMBLrel. 13, Created)
DT   01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   CG12919 protein.
GN   EIGER OR CG12919.
OS   Drosophila melanogaster (Fruit fly).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC   Ephydroidea; Drosophilidae; Drosophila.
OX   NCBI_TaxID=7227;
RN   [1]
RP   SEQUENCE FROM N.A.
RC   STRAIN=Berkeley;
RX   MEDLINE=20196006; PubMed=10731132;
RA   Adams M.D., Celniker S.E., Holt R.A., Evans C.A., Gocayne J.D.,
RA   Amanatides P.G., Scherer S.E., Li P.W., Hoskins R.A., Galle R.F.,
RA   George R.A., Lewis S.E., Richards S., Ashburner M., Henderson S.N.,
RA   Sutton G.G., Wortman J.R., Yandell M.D., Zhang Q., Chen L.X.,
RA   Brandon R.C., Rogers Y.-H.C., Blazej R.G., Champe M., Pfeiffer B.D.,
RA   Wan K.H., Doyle C., Baxter E.G., Helt G., Nelson C.R., Miklos G.L.G.,
RA   Abril J.F., Agbayani A., An H.-J., Andrews-Pfannkoch C., Baldwin D.,
RA   Ballew R.M., Basu A., Baxendale J., Bayraktaroglu L., Beasley E.M.,
RA   Beeson K.Y., Benos P.V., Berman B.P., Bhandari D., Bolshakov S.,
RA   Borkova D., Botchan M.R., Bouck J., Brokstein P., Brottier P.,
RA   Burtis K.C., Busam D.A., Butler H., Cadieu E., Center A., Chandra I.,
RA   Cherry J.M., Cawley S., Dahlke C., Davenport L.B., Davies P.,
RA   de Pablos B., Delcher A., Deng Z., Mays A.D., Dew I., Dietz S.M.,
RA   Dodson K., Doup L.E., Downes M., Dugan-Rocha S., Dunkov B.C., Dunn P.,
RA   Durbin K.J., Evangelista C.C., Ferraz C., Ferriera S., Fleischmann W.,
RA   Fosler C., Gabrielian A.E., Garg N.S., Gelbart W.M., Glasser K.,
RA   Glodek A., Gong F., Gorrell J.H., Gu Z., Guan P., Harris M.,
RA   Harris N.L., Harvey D., Heiman T.J., Hernandez J.R., Houck J.,
RA   Hostin D., Houston K.A., Howland T.J., Wei M.-H., Ibegwam C.,
RA   Jalali M., Kalush F., Karpen G.H., Ke Z., Kennison J.A., Ketchum K.A.,
RA   Kimmel B.E., Kodira C.D., Kraft C., Kravitz S., Kulp D., Lai Z.,
RA   Lasko P., Lei Y., Levitsky A.A., Li J., Li Z., Liang Y., Lin X.,
RA   Liu X., Mattei B., McIntosh T.C., McLeod M.P., McPherson D.,
RA   Merkulov G., Milshina N.V., Mobarry C., Morris J., Moshrefi A.,
RA   Mount S.M., Moy M., Murphy B., Murphy L., Muzny D.M., Nelson D.L.,
RA   Nelson D.R., Nelson K.A., Nixon K., Nusskern D.R., Pacleb J.M.,
RA   Palazzolo M., Pittman G.S., Pan S., Pollard J., Puri V., Reese M.G.,
RA   Reinert K., Remington K., Saunders R.D.C., Scheeler F., Shen H.,
RA   Shue B.C., Siden-Kiamos I., Simpson M., Skupski M.P., Smith T.,
RA   Spier E., Spradling A.C., Stapleton M., Strong R., Sun E.,
RA   Svirskas R., Tector C., Turner R., Venter E., Wang A.H., Wang X.,
RA   Wang Z.-Y., Wassarman D.A., Weinstock G.M., Weissenbach J.,
RA   Williams S.M., Woodage T., Worley K.C., Wu D., Yang S., Yao Q.A.,
RA   Ye J., Yeh R.-F., Zaveri J.S., Zhan M., Zhang G., Zhao Q., Zheng L.,
RA   Zheng X.H., Zhong F.N., Zhong W., Zhou X., Zhu S., Zhu X., Smith H.O.,
RA   Gibbs R.A., Myers E.W., Rubin G.M., Venter J.C.;
RT   "The genome sequence of Drosophila melanogaster.";
RL   Science 287:2185-2195(2000).
DR   EMBL; AE003831; AAF58848.1; -.
DR   FlyBase; FBgn0033483; eiger.
DR   GO; GO:0016020; C:membrane; IEA.
DR   GO; GO:0005164; F:tumor necrosis factor receptor binding; IEA.
DR   GO; GO:0006955; P:immune response; IEA.
DR   InterPro; IPR006052; TNF_family.
DR   InterPro; IPR008983; TNF_like.
DR   SMART; SM00207; TNF; 1.
DR   PROSITE; PS00251; TNF_1; 1.
DR   PROSITE; PS50049; TNF_2; 1.
SQ   SEQUENCE   325 AA;  36862 MW;  6E5CCB69694F1A3A CRC64;

  Query Match             7.5%;  Score 109;  DB 5;  Length 325;
  Best Local Similarity   20.9%;  Pred. No. 0.09;
  Matches   50;  Conservative   44;  Mismatches   79;  Indels   66;  Gaps   11;

Qy         76 LASLRAE---LQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAPGEGNSSQNSRNK 132
              :| :| |   :||:| |             |:|  :  |  |  | |||       :||::
Db        123 IADVRNEEQNIQGNHTE-----------LQEKSSNEATSK--ESPAPLHHRRRMHSRHR 168

Qy        133 RAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKR---GSA------------ 177
               :   |::      | | ||      |    : || :|   ||
Db        169 HLLVRKGESL------LSARSE------DSRPAAHFHLSSRRRHQGSMGYHGDMYIGNDN 216

Qy        178 --------LEEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTL 229
                     : ::  : |  || :::| |: | :     | :: :      ||
Db        217 ERNSYQGHFQTRDGVLTVTNTGLYYVYAQICYNNSHDQNGFIVFQ------GD----TPF 266

Qy        230 FRCIQNMPETLPN--NSCYSAGIAKLEEGDELQLAIPR--ENAQISLDGDVTFFGALKL 284
              :|:  :|  :|:  ::|:::|:  ||  : : |       || :   : ::||  |:
Db        267 LQCLNTVPTNMPHKVHTCHTSGLIHLERNERIHLKDIHNDRNAVLREGNNRSYFGIFKV 325


RESULT 15
Q8MUJ1
ID   Q8MUJ1      PRELIMINARY;      PRT;   415 AA.
AC   Q8MUJ1;
DT   01-OCT-2002 (TrEMBLrel. 22, Created)
DT   01-OCT-2002 (TrEMBLrel. 22, Last sequence update)
DT   01-OCT-2003 (TrEMBLrel. 25, Last annotation update)
DE   Eiger (DARTH).
GN   EIGER OR CG12919 OR DARTH.
OS   Drosophila melanogaster (Fruit fly).
OC   Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
OC   Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;
OC   Ephydroidea; Drosophilidae; Drosophila.
OX   NCBI_TaxID=7227;
RN   [1]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22165923; PubMed=12176339;
RA   Moreno E., Yan M., Basler K.;
RT   "Evolution of TNF Signaling Mechanisms. JNK-Dependent Apoptosis
RT   Triggered by Eiger, the Drosophila Homolog of the TNF Superfamily.";
RL   Curr. Biol. 12:1263-1268(2002).
RN   [2]
RP   SEQUENCE FROM N.A.
RX   MEDLINE=22775938; PubMed=12894227;
RA   Kauppila S., Maaty W.S., Chen P., Tomar R.S., Eby M.T., Chapo J.,
```

RA Chew S., Rathore N., Zachariah S., Sinha S.K., Abrams J.M.,
RA Chaudhary P.M.;
RT "Eiger and its receptor, Wengen, comprise a TNF-like system in
RT Drosophila.";
RL Oncogene 22:4860-4867(2003).
DR EMBL; AF521176; AAM76710.1; -.
DR EMBL; AY115551; AAM66763.1; -.
DR FlyBase; FBgn0033483; eiger.
DR GO; GO:0016020; C:membrane; IEA.
DR GO; GO:0005164; F:tumor necrosis factor receptor binding; IEA.
DR GO; GO:0006955; P:immune response; IEA.
DR InterPro; IPR006052; TNF_family.
DR InterPro; IPR008983; TNF_like.
DR SMART; SM00207; TNF; 1.
DR PROSITE; PS00251; TNF_1; 1.
DR PROSITE; PS50049; TNF_2; 1.
SQ SEQUENCE 415 AA; 46918 MW; E087A26DE222D2BF CRC64;

Query Match 7.5%; Score 109; DB 5; Length 415;
Best Local Similarity 20.9%; Pred. No. 0.13;
Matches 50; Conservative 44; Mismatches 79; Indels 66; Gaps 11;

```
Qy          76 LASLRAE---LQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAPGEGNSSQNSRNK 132
               :| :| |   :||:| |             |:|  :  |  |  | |||       :||::
Db         213 IADVRNEEQNIQGNHTE------------LQEKSSNEATSK--ESPAPLHHRRRMHSRHR 258

Qy         133 RAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKR---GSA------------ 177
                 :   |::      | | ||        |     : || :|   ||
Db         259 HLLVRKGESL------LSARSE------DSRPAAHFHLSSRRRHQGSMGYHGDMYIGNDN 306

Qy         178 --------LEEKENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTL 229
                     : ::  : |  || :::| |: | :      | :: :       ||
Db         307 ERNSYQGHFQTRDGVLTVTNTGLYYVYAQICYNNSHDQNGFIVFQ------GD----TPF 356

Qy         230 FRCIQNMPETLPN--NSCYSAGIAKLEEGDELQLAIPR--ENAQISLDGDVTFFGALKL 284
               :|:  :|  :|:  ::|:::|:  ||  : : |       || :    : ::||  |:
Db         357 LQCLNTVPTNMPHKVHTCHTSGLIHLERNERIHLKDIHNDRNAVLREGNNRSYFGIFKV 415
```

Search completed: August 25, 2004, 14:42:17
Job time : 84.9697 secs

GenCore version 5.1.6

OM protein - protein search, using sw model

Run on: August 25, 2004, 15:19:26 ; Search time 125 Seconds
(without alignments)
644.208 Million cell updates/sec

Title: US-09-911-777B-1
Perfect score: 1451
Sequence: 1 MDDSTEREQSRLTSCLKKRE.....ENAQISLDGDVTFFGALKLL 285

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 1586107 seqs, 282547505 residues

Total number of hits satisfying chosen parameters: 195

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 100%
Maximum Match 100%
Listing first 500 summaries

Database : A_Geneseq_29Jan04:*
1: geneseqp1980s:*
2: geneseqp1990s:*
3: geneseqp2000s:*
4: geneseqp2001s:*
5: geneseqp2002s:*
6: geneseqp2003as:*
7: geneseqp2003bs:*
8: geneseqp2004s:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	1451	100.0	285	2	AAW73043	Aaw73043 Tumour ne
2	1451	100.0	285	2	AAW62461	Aaw62461 Human T c
3	1451	100.0	285	2	AAW58391	Aaw58391 Homo sapi
4	1451	100.0	285	2	AAY22221	Aay22221 Human TNF
5	1451	100.0	285	2	AAW93586	Aaw93586 Human TNR
6	1451	100.0	285	2	AAY04392	Aay04392 Human Kay
7	1451	100.0	285	3	AAB08659	Aab08659 Amino aci
8	1451	100.0	285	3	AAB08261	Aab08261 Amino aci
9	1451	100.0	285	3	AAB28553	Aab28553 Human TNF
10	1451	100.0	285	3	AAB08191	Aab08191 Amino aci
11	1451	100.0	285	4	AAE09242	Aae09242 Human TAL
12	1451	100.0	285	4	AAU12183	Aau12183 Human PRO
13	1451	100.0	285	4	AAE07156	Aae07156 Human tum
14	1451	100.0	285	4	AAY71978	Aay71978 Human TNF
15	1451	100.0	285	4	AAY71915	Aay71915 Human TAC
16	1451	100.0	285	4	AAE07879	Aae07879 Human BAF
17	1451	100.0	285	5	AAE24636	Aae24636 Human tum
18	1451	100.0	285	5	ABB90325	Abb90325 Human pol
19	1451	100.0	285	5	ABB84865	Abb84865 Human PRO
20	1451	100.0	285	5	AAU79140	Aau79140 Human Neu
21	1451	100.0	285	5	ABJ00715	Abj00715 Human B 1
22	1451	100.0	285	5	ABB81485	Abb81485 Human ZTN
23	1451	100.0	285	5	ABG96458	Abg96458 Human Neu
24	1451	100.0	285	5	AAE26214	Aae26214 Human neu
25	1451	100.0	285	5	ABP47217	Abp47217 Human BLy
26	1451	100.0	285	5	ABG33576	Abg33576 Human B L
27	1451	100.0	285	5	AAE28963	Aae28963 Human ZTN
28	1451	100.0	285	5	AAU75409	Aau75409 Neutrokin
29	1451	100.0	285	5	AAU10942	Aau10942 Human AGP
30	1451	100.0	285	5	ABB95471	Abb95471 Human ang
31	1451	100.0	285	6	ABO17627	Abo17627 Novel hum
32	1451	100.0	285	6	AAE35212	Aae35212 Human tum
33	1451	100.0	285	6	AAE37301	Aae37301 Human neu
34	1451	100.0	285	6	ABU80881	Abu80881 Human PRO
35	1451	100.0	285	6	ABU66581	Abu66581 Human PRO
36	1451	100.0	285	6	ABU59662	Abu59662 Novel sec
37	1451	100.0	285	6	ADA49357	Ada49357 Human TAL
38	1451	100.0	285	6	ABO24852	Abo24852 Human sec
39	1451	100.0	285	6	ABR42318	Abr42318 Human BLy
40	1451	100.0	285	6	ABP60543	Abp60543 Human tum
41	1451	100.0	285	6	ABP97718	Abp97718 Amino aci
42	1451	100.0	285	6	ABU66857	Abu66857 Human sec
43	1451	100.0	285	6	ABP57103	Abp57103 Membrane
44	1451	100.0	285	6	ADA45543	Ada45543 Novel hum
45	1451	100.0	285	6	ADA75974	Ada75974 Human PRO
46	1451	100.0	285	6	ADA18624	Ada18624 Human PRO
47	1451	100.0	285	6	ADA61247	Ada61247 Homo sapi
48	1451	100.0	285	6	ADB19032	Adb19032 Novel hum
49	1451	100.0	285	6	ADB27573	Adb27573 Human PRO
50	1451	100.0	285	6	ADA86052	Ada86052 Novel hum
51	1451	100.0	285	6	ADB15616	Adb15616 Human PRO
52	1451	100.0	285	6	ADA47402	Ada47402 Human PRO
53	1451	100.0	285	6	ADA67197	Ada67197 Human PRO
54	1451	100.0	285	6	ADB30204	Adb30204 Human PRO
55	1451	100.0	285	6	ADA85500	Ada85500 Novel hum
56	1451	100.0	285	6	ADA96712	Ada96712 Human PRO
57	1451	100.0	285	6	ADA79016	Ada79016 Human PRO
58	1451	100.0	285	6	ADA87155	Ada87155 Novel hum
59	1451	100.0	285	6	ADB16357	Adb16357 Human PRO
60	1451	100.0	285	6	ADA91449	Ada91449 Novel hum
61	1451	100.0	285	6	ADB14512	Adb14512 Human PRO
62	1451	100.0	285	6	ADB18473	Adb18473 Novel hum
63	1451	100.0	285	6	ADA93688	Ada93688 Human PRO
64	1451	100.0	285	6	ADB19584	Adb19584 Novel hum
65	1451	100.0	285	6	ADB12896	Adb12896 Human PRO
66	1451	100.0	285	6	ABO43160	Abo43160 Novel hum
67	1451	100.0	285	6	ADA74150	Ada74150 Human PRO
68	1451	100.0	285	6	ADB24383	Adb24383 Human PRO
69	1451	100.0	285	6	ADA81907	Ada81907 Human PRO
70	1451	100.0	285	6	ADA74870	Ada74870 Human PRO
71	1451	100.0	285	6	ADA84948	Ada84948 Novel hum
72	1451	100.0	285	6	ADA84396	Ada84396 Novel hum
73	1451	100.0	285	6	ADB29652	Adb29652 Human PRO
74	1451	100.0	285	6	ADA80180	Ada80180 Human PRO
75	1451	100.0	285	6	ADA75422	Ada75422 Human PRO
76	1451	100.0	285	6	ADA46647	Ada46647 Human PRO
77	1451	100.0	285	6	ADB24943	Adb24943 Human PRO
78	1451	100.0	285	6	ADA93119	Ada93119 Human PRO
79	1451	100.0	285	6	ADB26469	Adb26469 Human PRO
80	1451	100.0	285	6	ADB30756	Adb30756 Human PRO
81	1451	100.0	285	6	ADA60684	Ada60684 Homo sapi
82	1451	100.0	285	6	ADB23831	Adb23831 Human PRO
83	1451	100.0	285	6	ADA96160	Ada96160 Human PRO
84	1451	100.0	285	6	ADA80732	Ada80732 Human PRO
85	1451	100.0	285	6	ADA95608	Ada95608 Human PRO
86	1451	100.0	285	6	ADB25917	Adb25917 Human PRO
87	1451	100.0	285	6	ADB21402	Adb21402 Novel hum
88	1451	100.0	285	7	ADA77181	Ada77181 Human PRO
89	1451	100.0	285	7	ADB17921	Adb17921 Human PRO
90	1451	100.0	285	7	ADA86604	Ada86604 Novel hum
91	1451	100.0	285	7	ADA87707	Ada87707 Novel hum
92	1451	100.0	285	7	ADA46095	Ada46095 Novel hum
93	1451	100.0	285	7	ADB28125	Adb28125 Human PRO
94	1451	100.0	285	7	ADB28677	Adb28677 Human PRO
95	1451	100.0	285	7	ADA76629	Ada76629 Human PRO
96	1451	100.0	285	7	ADA88259	Ada88259 Novel hum
97	1451	100.0	285	7	ADA97264	Ada97264 Human PRO
98	1451	100.0	285	7	ADB27021	Adb27021 Human PRO

99	1451	100.0	285	7	ADB21954	Adb21954 Novel hum
100	1451	100.0	285	7	ADA66645	Ada66645 Human PRO
101	1451	100.0	285	7	ADB22506	Adb22506 Human PRO
102	1451	100.0	285	7	ADB23279	Adb23279 Human PRO
103	1451	100.0	285	7	ADA92001	Ada92001 Novel hum
104	1451	100.0	285	7	ADB15064	Adb15064 Human PRO
105	1451	100.0	285	7	ADB38316	Adb38316 Novel hum
106	1451	100.0	285	7	ADB37764	Adb37764 Novel hum
107	1451	100.0	285	7	ADB66236	Adb66236 Novel hum
108	1451	100.0	285	7	ADB89316	Adb89316 Human PRO
109	1451	100.0	285	7	ADB90048	Adb90048 Human PRO
110	1451	100.0	285	7	ADB39149	Adb39149 Novel hum
111	1451	100.0	285	7	ADB46772	Adb46772 Novel hum
112	1451	100.0	285	7	ADB86379	Adb86379 Human PRO
113	1451	100.0	285	7	ADB76984	Adb76984 Novel hum
114	1451	100.0	285	7	ADB34141	Adb34141 Human PRO
115	1451	100.0	285	7	ADB35245	Adb35245 Human PRO
116	1451	100.0	285	7	ADB33589	Adb33589 Human PRO
117	1451	100.0	285	7	ADB34693	Adb34693 Human PRO
118	1451	100.0	285	7	ADB35797	Adb35797 Human PRO
119	1451	100.0	285	7	ADB46192	Adb46192 Novel hum
120	1451	100.0	285	7	ABR56191	Abr56191 Human B-c
121	1451	100.0	285	7	ADC35212	Adc35212 Human TNF
122	1451	100.0	285	7	ADC50065	Adc50065 Novel hum
123	1451	100.0	285	7	ADC71612	Adc71612 Novel hum
124	1451	100.0	285	7	ADC59591	Adc59591 Novel hum
125	1451	100.0	285	7	ADC52598	Adc52598 Novel hum
126	1451	100.0	285	7	ADC56952	Adc56952 Novel hum
127	1451	100.0	285	7	ADC60143	Adc60143 Novel hum
128	1451	100.0	285	7	ADC50618	Adc50618 Novel hum
129	1451	100.0	285	7	ADC65145	Adc65145 Human PRO
130	1451	100.0	285	7	ADC54243	Adc54243 Novel hum
131	1451	100.0	285	7	ADC53204	Adc53204 Novel hum
132	1451	100.0	285	7	ADC58727	Adc58727 Novel hum
133	1451	100.0	285	7	ADC55605	Adc55605 Novel hum
134	1451	100.0	285	7	ADC58175	Adc58175 Novel hum
135	1451	100.0	285	7	ADD02849	Add02849 Novel hum
136	1451	100.0	285	7	ADC89841	Adc89841 Novel hum
137	1451	100.0	285	7	ADC69260	Adc69260 Human PRO
138	1451	100.0	285	7	ADC48149	Adc48149 Human PRO
139	1451	100.0	285	7	ADD09678	Add09678 Human PRO
140	1451	100.0	285	7	ADD04253	Add04253 Novel hum
141	1451	100.0	285	7	ADC80209	Adc80209 Novel hum
142	1451	100.0	285	7	ADD10716	Add10716 Human PRO
143	1451	100.0	285	7	ADD10387	Add10387 Human sec
144	1451	100.0	285	7	ADC47597	Adc47597 Human PRO
145	1451	100.0	285	7	ADC79657	Adc79657 Novel hum
146	1451	100.0	285	7	ADD11347	Add11347 Human sec
147	1451	100.0	285	7	ADD09126	Add09126 Human PRO
148	1451	100.0	285	7	ADD40839	Add40839 Novel hum
149	1451	100.0	285	7	ADD51978	Add51978 Human PRO
150	1451	100.0	285	7	ADD52718	Add52718 Human PRO
151	1451	100.0	285	7	ADD53270	Add53270 Novel hum
152	1451	100.0	285	7	ADD37140	Add37140 Human sec
153	1451	100.0	285	7	ADD51426	Add51426 Human PRO
154	1451	100.0	285	7	ADD02225	Add02225 Human PRO
155	1451	100.0	285	7	ADD01659	Add01659 Human PRO
156	1451	100.0	285	7	ADD53841	Add53841 Novel hum
157	1451	100.0	285	7	ADD92158	Add92158 Human PRO
158	1451	100.0	285	7	ADD91054	Add91054 Human PRO
159	1451	100.0	285	7	ADE03668	Ade03668 Human PRO
160	1451	100.0	285	7	ADE31965	Ade31965 Novel hum
161	1451	100.0	285	7	ADE21897	Ade21897 Human PRO
162	1451	100.0	285	7	ADD79121	Add79121 Human PRO
163	1451	100.0	285	7	ADE41657	Ade41657 Human PRO
164	1451	100.0	285	7	ADE17474	Ade17474 Human PRO
165	1451	100.0	285	7	ADD91606	Add91606 Human PRO
166	1451	100.0	285	7	ADE33069	Ade33069 Novel hum
167	1451	100.0	285	7	ADE33621	Ade33621 Novel hum
168	1451	100.0	285	7	ADD79673	Add79673 Human PRO
169	1451	100.0	285	7	ADE34544	Ade34544 Human B-L
170	1451	100.0	285	7	ADD92710	Add92710 Human PRO
171	1451	100.0	285	7	ADE19130	Ade19130 Human PRO
172	1451	100.0	285	7	ADE18578	Ade18578 Human PRO
173	1451	100.0	285	7	ADE42774	Ade42774 Human PRO
174	1451	100.0	285	7	ADD95563	Add95563 Human PRO
175	1451	100.0	285	7	ADE22449	Ade22449 Human PRO
176	1451	100.0	285	7	ADD78567	Add78567 Human PRO
177	1451	100.0	285	7	ADE32517	Ade32517 Novel hum
178	1451	100.0	285	7	ADE42209	Ade42209 Human PRO
179	1451	100.0	285	7	ADD80225	Add80225 Human PRO
180	1451	100.0	285	7	ADD89253	Add89253 Human PRO
181	1451	100.0	285	7	ADE40537	Ade40537 Human PRO
182	1451	100.0	285	7	ADE04336	Ade04336 Human PRO
183	1451	100.0	285	8	ADC80761	Adc80761 Novel hum
184	1451	100.0	285	8	ADD76209	Add76209 Human PRO
185	1451	100.0	285	8	ADD87573	Add87573 Human PRO
186	1451	100.0	285	8	ADD85977	Add85977 Human PRO
187	1451	100.0	285	8	ADE75425	Ade75425 Human PRO
188	1451	100.0	285	8	ADE41348	Ade41348 Human sec
189	1451	100.0	285	8	ADE23001	Ade23001 Human PRO
190	1451	100.0	285	8	ADE23553	Ade23553 Human PRO
191	1451	100.0	285	8	ADE24196	Ade24196 Human PRO
192	1451	100.0	285	8	ADD87021	Add87021 Human PRO
193	1451	100.0	285	8	ADE88887	Ade88887 Human PRO
194	1451	100.0	285	8	ADE18026	Ade18026 Human PRO
195	1451	100.0	285	8	ADE88335	Ade88335 Human PRO

ALIGNMENTS

RESULT 1
AAW73043
ID AAW73043 standard; protein; 285 AA.
XX
AC AAW73043;
XX
DT 07-JAN-1999 (first entry)
XX
DE Tumour necrosis factor homologue TL5 protein.
XX
KW Tumour necrosis factor homologue TL5; vaccine; chronic;
KW acute inflammation; arthritis; septicemia; autoimmune disease;
KW inflammatory bowel disease; psoriasis; transplant rejection;
KW graft vs. host disease; infection; stroke; ischaemia;
KW acute respirator disease syndrome; restenosis; brain injury; AIDS;
KW bone disease; cancer; lymphoproliferative disorder; atherosclerosis;
KW Alzheimer's disease.
XX
OS Homo sapiens.
XX
PN EP869180-A1.
XX
PD 07-OCT-1998.
XX
PF 01-APR-1998; 98EP-00302526.
XX
PR 02-APR-1997; 97US-0041797P.
PR 03-DEC-1997; 97US-00984396.
XX
PA (SMIK) SMITHKLINE BEECHAM CORP.
XX
PI Hurle MR, Young PR;
XX
DR WPI; 1998-508494/44.
DR N-PSDB; AAV58894.
XX
PT New tumour necrosis factor homologue, TL5 - useful for diagnosis and
PT treatment of Alzheimer's disease, AIDS and cancer.
XX
PS Claim 10; Page 18; 23pp; English.
XX
CC The present sequence encodes a tumour necrosis factor homologue TL5
CC polypeptide sequence. TL5 polypeptides and antibodies are useful for
CC identifying compounds which agonise and antagonise TL5, and these can be

CC administered for treatment to inhibit TL5 activity (antagonist) or
CC enhance TL5 activity (agonist). Gene therapy using the expression system
CC can also be used to enhance TL5 activity. Diseases or susceptibility to a
CC disease can be diagnosed by determining the presence or absence of a
CC mutation in the TL5 protein. TL5 polynucleotides are useful for locating
CC genes associated with disease by hybridisation to chromosomes. TL5
CC polypeptides and polynucleotides can be used, especially to raise an
CC immune response (i.e. as vaccines) for the treatment of chronic and acute
CC inflammation, arthritis, septicemia, autoimmune diseases (e.g.
CC inflammatory bowel disease, psoriasis), transplant rejection, graft vs.
CC host disease, infection, stroke, ischaemia, acute respiratory disease
CC syndrome, restenosis, brain injury, AIDS, bone diseases, cancer (e.g.
CC lymphoproliferative disorders), atherosclerosis, and Alzheimers disease
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 2; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 2
AAW62461
ID AAW62461 standard; protein; 285 AA.
XX
AC AAW62461;
XX
DT 05-OCT-1998 (first entry)
XX
DE Human T cell surface antigen 63954 protein sequence #2.
XX
KW Human; 63954; primate; rodent; mouse; T cell surface antigen; mammal;
KW diagnosis; antigen-specific proliferation; cytokine production;
KW immune response; autoimmune disorder; rheumatoid arthritis;
KW systemic lupus erythematosis; Hashimoto's autoimmune thyroiditis.
XX
OS Homo sapiens.
XX
PN WO9827114-A2.
XX
PD 25-JUN-1998.
XX
PF 16-DEC-1997; 97WO-US023321.
XX
PR 17-DEC-1996; 96US-0033601P.
XX
PA (SCHE) SCHERING CORP.
XX
PI Gorman DM;
XX
DR WPI; 1998-362719/31.
DR N-PSDB; AAV39985.
XX
PT New isolated polypeptide, 63954 - used to develop products for treating
PT e.g. autoimmune disorders, inflammation, tissue rejection, cancer or
PT degenerative conditions.
XX
PS Claim 1; Page 60-61; 69pp; English.
XX
CC The present sequence is a human T cell surface antigen, designated 63954.
CC The novel protein designated 63954 is expressed on T cells. Protein 63954
CC can modulate antigen-specific proliferation and cytokine production on
CC effector cells and may potentiate immune cell expansion or apoptosis.
CC 63954 agonists or antagonists may also act as a co-stimulatory molecule
CC for regulation of T cell mediated cell activation, and may cause a shift
CC of T helper cell types, e.g. between Th1 and Th2. Antagonists of 63954
CC can be used to modulate immune responses in abnormal situations, e.g.
CC autoimmune disorders, including rheumatoid arthritis, systemic lupus
CC erythematosis (SLE), Hashimoto's autoimmune thyroiditis, as well as acute
CC and chronic inflammatory responses in which T cell activation, expansion,
CC and/or immunological T cell memory play an important role, such as
CC chronic inflammation or tissue rejection. The products can also be used
CC in the treatment of conditions associated with abnormal physiology or
CC development, including abnormal proliferation, e.g. cancerous conditions,
CC or degenerative conditions. The products can also be used for detection,
CC diagnosis and drug screening
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 2; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 3
AAW58391
ID AAW58391 standard; protein; 285 AA.
XX
AC AAW58391;
XX
DT 11-SEP-1998 (first entry)
XX
DE Homo sapiens neutrokine alpha protein.
XX
KW neutrokine alpha; cell proliferation; differentiation; migration;
KW cytotoxicity; cell death; treatment; tumour; infection; inflammation;
KW wound healing; immunodeficiency; autoimmune disease; graft rejection;
KW fibrotic disorder; haematopoiesis; sepsis; shock; malaria; HIV; AIDS;
KW acquired immune deficiency syndrome; rheumatoid arthritis; silicosis;
KW cachexia; detection; diagnosis; drug screening.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Domain 1. .46
FT /note= "intracellular domain"

```
FT   Domain          47. .72
FT                   /note= "transmembrane domain"
FT   Domain          73. .285
FT                   /note= "extracellular domain"
XX
PN   WO9818921-A1.
XX
PD   07-MAY-1998.
XX
PF   25-OCT-1996;   96WO-US017957.
XX
PR   25-OCT-1996;   96WO-US017957.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Yu G,  Ebner R,  Ni J;
XX
DR   WPI; 1998-272216/24.
DR   N-PSDB; AAV30934.
XX
PT   New isolated human Neutrokine alpha - used to develop products for
PT   diagnosis and treatment of e.g. tumours, infections, immunodeficiencies
PT   or autoimmune diseases.
XX
PS   Claim 17; Fig 1; 104pp; English.
XX
CC   The sequence is that of the neutrokine alpha protein. Neutrokine alpha
CC   (NA) polypeptides modulate cell proliferation, differentiation,
CC   migration, cytotoxicity and cell death. They can be used to treat e.g.
CC   tumour and tumour metastasis, infections by bacteria, viruses and other
CC   parasites, immunodeficiencies, inflammatory diseases, lymphadenopathy,
CC   autoimmune diseases, graft versus host disease and to stimulate
CC   peripheral tolerance, destroy some transformed cell lines, mediate cell
CC   activation and proliferation, and are functionally linked as primary
CC   mediators of immune regulation and inflammatory responses. Such activity
CC   is useful for immune enhancement or suppression, myeloprotection, stem
CC   cell mobilisation, acute and chronic inflammatory control and treatment
CC   of leukaemia. They can also be used to stimulate wound healing and to
CC   treat fibrotic disorders including liver cirrhosis, osteoarthritis and
CC   pulmonary fibrosis. They can also be used to regulate haematopoiesis, by
CC   regulating the activation and differentiation of various haematopoietic
CC   progenitor cells, e.g. to release mature leukocytes from the bone marrow
CC   following chemotherapy, and in stem cell mobilisation. NA may also be
CC   used to treat sepsis. NA antagonists can be used to prevent septic shock,
CC   inflammation, cerebral malaria, activation of the HIV virus, graft-host
CC   rejection, bone resorption, rheumatoid arthritis and cachexia (wasting or
CC   malnutrition). They can also be used to treat e.g. autoimmune diseases
CC   such as multiple sclerosis and insulin-dependent diabetes and
CC   inflammatory and infectious diseases such as silicosis, and sarcoidosis,
CC   idiopathic pulmonary fibrosis, idiopathic hyper-eosinophilic syndrome,
CC   endotoxic shock, atherosclerosis, histamine-mediated allergic reactions
CC   and immunological disorders including late phase allergic reactions,
CC   chronic urticaria, and atopic dermatitis by inhibiting chemokine-induced
CC   mast cell and basophil degranulation and release of histamine. IgE-
CC   mediated allergic reactions such as allergic asthma, rhinitis and eczema,
CC   inflammatory pulmonary diseases, rheumatoid arthritis, inflammation,
CC   degenerative and inflammatory arthropathies, aplastic anaemia,
CC   myelodysplastic syndrome, subepithelial basement membrane fibrosis or
CC   adult respiratory distress syndrome. The products can also be used for
CC   detection, diagnosis and drug screening
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 2;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||

Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 4
AAY22221
ID   AAY22221 standard; protein; 285 AA.
XX
AC   AAY22221;
XX
DT   16-SEP-1999  (first entry)
XX
DE   Human TNFL1 protein sequence.
XX
KW   TNFL1; human; TNFR superfamily; tumour necrosis factor ligand; TNF;
KW   tumour necrosis factor receptor; TNFR superfamily; cell proliferation;
KW   cell differentiation; cytokine production; immunoglobulin; hyperplasia;
KW   apoptosis inducer; activated T cell; autoimmune disease; inhibitor;
KW   myasthenia gravis; insulin-dependent diabetes mellitus; endotoxic shock;
KW   rheumatoid arthritis; multiple sclerosis; systemic lupus erythematosus;
KW   tumour; proliferative disorder; neoplasia; dysplasia; immunocompetence;
KW   lymphoid organogenesis; bacterial resistance; contact hypersensitivity;
KW   delayed type sensitivity; therapy.
XX
OS   Homo sapiens.
XX
PN   WO9933980-A2.
XX
PD   08-JUL-1999.
XX
PF   22-DEC-1998;   98WO-US027474.
XX
PR   30-DEC-1997;   97US-0068959P.
PR   16-DEC-1998;   98US-00212270.
XX
PA   (CHIR ) CHIRON CORP.
XX
PI   Tribouley C,  Pot D,  Kassam A,  Lamson G;
XX
DR   WPI; 1999-405508/34.
DR   N-PSDB; AAX84620.
XX
PT   New tumor necrosis factor ligands, useful for induction of cell death
PT   and/or proliferation of cells.
XX
PS   Claim 1; Page 61; 69pp; English.
XX
CC   This sequence is the tumour necrosis factor (TNF) ligand family protein
CC   of the invention, designated TNFL1. The TNFL proteins play regulatory
CC   roles in cell proliferation and/or differentiation, e.g. they can induce
CC   production of cytokines, immunoglobulins, etc. A variety of diseases can
CC   be treated by modulating the activity of TNFL proteins, e.g. they can
CC   induce apoptosis of activated T cells but rescue resting T cell from
CC   apoptosis. TNFL polypeptides can therefore be used to treat autoimmune
CC   diseases, such as myasthenia gravis, insulin-dependent diabetes mellitus,
CC   rheumatoid arthritis, multiple sclerosis, and systemic lupus
CC   erythematosus. TNFL proteins also have tumour stimulating properties, so
CC   tumours can be treated by inhibiting the expression or activity of TNFL.
CC   Other proliferative disorders, such as neoplasias, dysplasias, and
CC   hyperplasia can also be treated using TNFL inhibitors. The TNFL
CC   polypeptides and polynucleotides can also be used to enhance or decrease
CC   TNF activity, thus providing therapeutic benefits such as induction of
```

```
CC   cell death, lymphoid organogenesis, or host bacterial resistance, and
CC   inhibition of endotoxic shock, contact hypersensitivity, delayed type
CC   sensitivity or immunocompetence of a transplant recipient. Tumour
CC   necrosis factor (TNF) and its receptors play a major role in host defence
CC   and immunosurveillance. As such, there is a need to identify new members
CC   of TNFR families. This invention provides this need
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 2;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 5
AAW93586
ID   AAW93586 standard; protein; 285 AA.
XX
AC   AAW93586;
XX
DT   18-JUN-1999  (first entry)
XX
DE   Human TNRL1-alpha protein.
XX
KW   Tumour necrosis factor receptor; signal transducer molecule; TNF; APO4;
KW   developmental abnormality; gestational abnormality; prostate cancer;
KW   APO6; APO8; APO9; TNRL-1; TNRL-3; diagnosis; treatment; therapy; disease;
KW   cytoplasmic domain; immunogen; antibody preparation; breast carcinoma;
KW   apoptosis; human; TNRL1-alpha.
XX
OS   Homo sapiens.
XX
PN   WO9911791-A2.
XX
PD   11-MAR-1999.
XX
PF   04-SEP-1998;   98WO-US018393.
XX
PR   05-SEP-1997;   97US-00924634.
XX
PA   (UNIW ) UNIV WASHINGTON.
XX
PI   Chaudhary PM;
XX
DR   WPI; 1999-205191/17.
DR   N-PSDB; AAX23420.
XX
PT   New Tumor Necrosis Factor family receptor polypeptides and ligands -
PT   useful for diagnosis and treatment of prostate cancer and developmental
PT   or gestational abnormalities.
XX
PS   Claim 34; Fig 11A; 156pp; English.
XX
CC   This invention describes isolated Tumor Necrosis Factor (TNF) family
CC   receptor polypeptides: APO4, APO6, APO8 and APO9 or their active
CC   fragments, and isolated TNF related ligands 1 and 3 (TNRL1 and TNRL3) or
CC   their active fragments. APO4 is useful for diagnosing prostate cancer by
CC   determining levels of APO4 in an individual. Prostate cancer can also be
CC   treated using APO4 selective binding agents linked to a therapeutic
CC   moiety. APO4 polypeptides are also useful for identifying selective
CC   binding agents, useful in diagnosis/treatment of disease by binding of
CC   agents to the polypeptide/active fragment which is extracellular, or
CC   expressed on the cell surface. The binding is preferably performed in
CC   vivo. APO4 polypeptides/ active fragments are also useful for screening
CC   for agonists and antagonists by binding and observing the changer in APO4
CC   activity. Effective pharmacological agents useful in diagnosis or
CC   treatment of disease are also identified using APO4 polypeptides/active
CC   fragments and APO4 signal transducer molecules that specifically interact
CC   with a cytoplasmic domain of APO4 and detecting a change in level of APO4
CC   activity. The method is performed in vivo or in vitro. APO polypeptides
CC   are all useful as immunogens for preparing antibodies. APO4 is also
CC   useful for diagnosis/treatment of developmental or gestational
CC   abnormalities. APO8 was transfected to human breast carcinoma cell line
CC   MCF-7, and induced apoptosis
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 2;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 6
AAY04392
ID   AAY04392 standard; protein; 285 AA.
XX
AC   AAY04392;
XX
DT   24-JUN-1999  (first entry)
XX
DE   Human Kay-ligand.
XX
KW   Kay-ligand; tumour necrosis factor family; TNF; immune system; cytokine;
KW   autoimmune disease; tissue graft; cancer; cell death.
XX
OS   Homo sapiens.
XX
PN   WO9912964-A2.
XX
PD   18-MAR-1999.
XX
PF   11-SEP-1998;   98WO-US019037.
XX
PR   12-SEP-1997;   97US-0058786P.
XX
PA   (BIOJ ) BIOGEN INC.
```

```
XX
PI   Tschopp J;
XX
DR   WPI; 1999-243715/20.
DR   N-PSDB; AAX33330.
XX
PT   New human or murine Kay-ligands, members of the tumour necrosis factor
PT   family.
XX
PS   Claim 12; Page 32; 41pp; English.
XX
CC   The present sequence represents human Kay-ligand, which is a member of
CC   the tumour necrosis factor (TNF) family of cytokines. Pharmaceutical
CC   compositions containing the Kay-ligand can be used to suppress or
CC   stimulate the immune system, especially to prevent or reduce the severity
CC   of autoimmune diseases or response to a tissue graft or to treat cancer.
CC   An agent capable of interfering with the Kay-ligand can be used to induce
CC   cell death. The Kay-ligand can also be used to identify its receptors
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 2;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 7
AAB08659
ID   AAB08659 standard; protein; 285 AA.
XX
AC   AAB08659;
XX
DT   02-JAN-2001  (first entry)
XX
DE   Amino acid sequence of a human neutrokine-alpha polypeptide.
XX
KW   Human; neutrokine-alpha; tumor; tumor metastasis; infection;
KW   immunodeficiency; inflammatory disease; lymphadenopathy; dermatitis;
KW   autoimmune disease; graft versus host disease; immune regulation;
KW   severe combined immunodeficiency-X-linked agammaglobulinemia;
KW   kappa chain deficiency; B cell lymphoproliferative disorder; purpura;
KW   Wiskott-Aldrich syndrome; systemic lupus erhythematosus; myocarditis;
KW   idiopathic thrombocytopenia purpura; hemolytic anemia; neuritis;
KW   allergic encephalomyelitis; relapsing polychondritis; glomerulonephritis;
KW   rheumatic heart disease; multiple sclerosis; uveitis opthalmia;
KW   polyendocrinopathy; Reiter's disease; autoimmune pulmonary inflammation;
KW   myeloprotection; stem cell mobilization; leukemia.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          1. .46
FT                   /note= "intracellular domain"
FT   Domain          47. .72
FT                   /note= "transmembrane domain"
FT   Domain          73. .285
FT                   /note= "extracellular domain"
FT   Modified-site   124. .127
FT                   /note= "potential N-linked glycosylation site"
FT   Modified-site   242. .245
FT                   /note= "potential N-linked glycosylation site"
XX
PN   WO200050597-A2.
XX
PD   31-AUG-2000.
XX
PF   22-FEB-2000; 2000WO-US004336.
XX
PR   23-FEB-1999;   99US-00255794.
PR   02-MAR-1999;   99US-0122388P.
PR   12-MAR-1999;   99US-0124097P.
PR   26-MAR-1999;   99US-0126599P.
PR   02-APR-1999;   99US-0127598P.
PR   16-APR-1999;   99US-0130412P.
PR   23-APR-1999;   99US-0130696P.
PR   27-APR-1999;   99US-0131278P.
PR   29-APR-1999;   99US-0131673P.
PR   28-MAY-1999;   99US-0136784P.
PR   06-JUL-1999;   99US-0142659P.
PR   27-JUL-1999;   99US-0145824P.
PR   24-NOV-1999;   99US-0167239P.
PR   03-DEC-1999;   99US-0168624P.
PR   16-DEC-1999;   99US-0171108P.
PR   23-DEC-1999;   99US-0171626P.
PR   14-JAN-2000; 2000US-0176015P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Rosen CA,  Ni J,  Ebner R,  Yu G;
XX
DR   WPI; 2000-572093/53.
DR   N-PSDB; AAA64427.
XX
PT   Novel cytokine neutrokine-alpha, its splicing variant, neutrokine-alpha
PT   SV polypeptides useful for treating tumor, tumor metastasis, microbial
PT   infections, immunodeficiency, inflammatory diseases, lymphoadenopathy.
XX
PS   Claim 18; Fig 1A-B; 414pp; English.
XX
CC   The present sequence represents a human neutrokine-alpha polypeptide.
CC   Neutrokine-alpha polypeptides are used to treat, prevent, prognose and
CC   diagnose tumor and tumor metastasis, infections by bacteria, viruses and
CC   other parasites, immunodeficiencies, inflammatory diseases,
CC   lymphadenopathy, autoimmune diseases, graft versus host disease, to
CC   mediate immune regulation and inflammatory responses. Diseases which may
CC   be treated include severe combined immunodeficiency (SCID)-X-linked
CC   agammaglobulinemia, kappa chain deficiency, B cell lymphoproliferative
CC   disorder (BLPD), Wiskott-Aldrich syndrome, systemic lupus erhythematosus,
CC   idiopathic thrombocytopenia purpura, hemolytic anemia, dermatitis,
CC   allergic encephalomyelitis, myocarditis, relapsing polychondritis,
CC   rheumatic heart disease, glomerulonephritis, multiple sclerosis,
CC   Neuritis, Uveitis Opthalmia, Polyendocrinopathies, Purpura (e.g. Henloch-
CC   Scoenlein purpura), Reiter's Disease, and Autoimmune Pulmonary
CC   Inflammation. Neutrokine-alpha is useful for immune enhancement or
CC   suppression, myeloprotection, stem cell mobilization, acute and chronic
CC   inflammatory control and treatment of leukemia
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 3;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
```

```
Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 8
AAB08261
ID   AAB08261 standard; protein; 285 AA.
XX
AC   AAB08261;
XX
DT   04-DEC-2000  (first entry)
XX
DE   Amino acid sequence of a human AGP-3 polypeptide.
XX
KW   AGP-3; tumour necrosis factor ligand; TNF ligand; Crohn's disease;
KW   type II transmembrane protein; B cell stimulatory factor;
KW   inflammatory disorder; immune disorder; rheumatoid arthritis;
KW   lupus and graft versus host disease.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          1. .46
FT                   /note= "intracellular domain"
FT   Region          42. .72
FT                   /note= "transmembrane region"
FT   Domain          73. .285
FT                   /note= "extracellular domain"
XX
PN   WO200047740-A2.
XX
PD   17-AUG-2000.
XX
PF   11-FEB-2000; 2000WO-US003653.
XX
PR   12-FEB-1999;   99US-0119906P.
PR   18-NOV-1999;   99US-0166271P.
XX
PA   (AMGE-) AMGEN INC.
XX
PI   Boyle WJ,  Hsu H;
XX
DR   WPI; 2000-558217/51.
DR   N-PSDB; AAA63941.
XX
PT   Novel polypeptides comprising tumor necrosis factor ligand family
PT   proteins, useful for treating inflammatory and immune disorders, e.g.
PT   rheumatoid arthritis.
XX
PS   Claim 4; Fig 1; 71pp; English.
XX
CC   The present sequence represents a human AGP-3 polypeptide. AGP-3 is a
CC   tumour necrosis factor (TNF) ligand family member. AGP-3 is a type II
CC   transmembrane protein, and is a potent B cell stimulatory factor.
CC   Expression of AGP-3 correlates to increases in the number of B cells and
CC   immunoglobulins produced. AGP-3 proteins, antibodies, and nucleic acids
CC   may be used to treat inflammatory and immune disorders, e.g. rheumatoid
CC   arthritis, Crohn's disease, lupus and graft versus host disease. The
CC   nucleic acids may be used to regulate the expression of an AGP-3 related
CC   protein. The AGP-3 proteins, antibodies and nucleic ands are also useful
CC   for the detection of AGP-3 agonists, antagonists and characterizing
CC   interactions with AGP-3 related proteins. note: this sequence is not
CC   specifically claimed. It is only mentioned in the claims, in that a
CC   polypeptide that does not comprise the present sequence is claimed
XX
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 3;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 9
AAB28553
ID   AAB28553 standard; protein; 285 AA.
XX
AC   AAB28553;
XX
DT   08-FEB-2001  (first entry)
XX
DE   Human TNFL1.
XX
KW   Human; tumour necrosis factor like-1; TNFL1; tumour necrosis factor; TNF;
KW   immunosuppressive; antiarthritic; neuroprotective; dermatalogical;
KW   antiinflammatory; antidiabetic; cytostatic; osteopathic; gene therapy;
KW   colon cancer; rheumatoid arthritis; septic shock; Crohn's disease;
KW   osteoporosis; autoimmune disease; myasthenia gravis;
KW   insulin-dependent diabetes mellitus.
XX
OS   Homo sapiens.
XX
PN   WO200060079-A2.
XX
PD   12-OCT-2000.
XX
PF   05-APR-2000; 2000WO-US009058.
XX
PR   05-APR-1999;   99US-00286529.
XX
PA   (CHIR ) CHIRON CORP.
XX
PI   Tribouley C;
XX
DR   WPI; 2000-665004/64.
DR   N-PSDB; AAC63756.
XX
PT   Tumor necrosis factor (TNF) and TNF receptor superfamily protein members
PT   TNF-L and TNFR-L, useful for enhancing or decreasing TNF activities such
PT   as inducing cell death and lymphoid organogenesis.
XX
PS   Claim 1; Page 65; 77pp; English.
XX
```

```
CC   The present sequence is given in a specification relating to an isolated
CC   human protein designated tumour necrosis factor like-1 (TNFL1). It may be
CC   used to induce cell death in tumours, to induce apoptosis of activated T
CC   cells, to induce inflammation, and to rescue resting T cells from
CC   apoptosis. TNF receptors are used to regulate the function of a TNF
CC   ligand which plays a role in apoptosis, inflammation, differentiation, or
CC   proliferation. Expression of the receptors can also be useful as markers
CC   for cancer, especially for colon cancer. Diseases which can be treated
CC   using ligands and/or receptors of the TNF/TNFR superfamily include
CC   rheumatoid arthritis, cancer, septic shock, Crohn's disease and
CC   osteoporosis. The polynucleotides can be used in gene delivery vehicles,
CC   for the purpose of delivering a mRNA or oligonucleotide, full-length
CC   protein, fusion protein, polypeptide, or ribozyme, or single-chain
CC   antibody, into a cell. The newly identified receptor proteins play
CC   regulatory roles in cell proliferation and/or differentiation. The
CC   receptors can also play a role in the negative regulation of
CC   osteoclastogenesis. Soluble TNFR-like receptors can be useful in the
CC   neutralisation of TNF or TNF-like ligands. A TNF-L protein can also be
CC   used to treat autoimmune diseases (myasthenia gravis and insulin-
CC   dependent diabetes mellitus), tumours, and proliferative disorders. A TNF
CC   -L or TNFR-L subgenomic polynucleotide can also be delivered to subjects
CC   for the purpose of screening test compounds for those which are useful
CC   for enhancing transfer of TNF-L subgenomic polynucleotides to the cell or
CC   for enhancing subsequent biological effects of TNF-L or TNFR-L subgenomic
CC   polynucleotides within the cell
XX
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 3;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 10
AAB08191
ID   AAB08191 standard; protein; 285 AA.
XX
AC   AAB08191;
XX
DT   04-DEC-2000  (first entry)
XX
DE   Amino acid sequence of human cytokine designated THANK.
XX
KW   Human; cytokine; THANK; tumour necrosis factor homologue; apoptosis;
KW   nuclear factor-kB; c-jun N-terminal kinase; shock; acute phase response;
KW   viral infection; radiation susceptibility; atherosclerosis; cancer;
KW   acute inflammatory condition; arthritis; allergy;
KW   graft versus host reaction; tumour cell.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          1. .46
FT                   /note= "intracellular domain"
FT   Domain          47. .77
FT                   /note= "transmembrane domain"
FT   Domain          78. .111
FT                   /note= "extracellular domain"
FT   Domain          112. .285
FT                   /note= "extracellular domain"
XX
PN   WO200045836-A1.
XX
PD   10-AUG-2000.
XX
PF   02-FEB-2000; 2000WO-US002751.
XX
PR   02-FEB-1999;   99US-0118531P.
XX
PA   (RERE-) RES DEV FOUND.
XX
PI   Aggarwal BB;
XX
DR   WPI; 2000-514890/46.
XX
PT   Inhibiting the activation of nuclear factor-kB in cells for treating
PT   pathological conditions comprises treating cells with a tumor necrosis
PT   factor homolog inhibitor.
XX
PS   Example 1; Fig 1; 45pp; English.
XX
CC   The present sequence represents a human cytokine, designated THANK. THANK
CC   is a tumour necrosis factor (TNF) homologue that activates apoptosis,
CC   nuclear factor-kB, and c-jun N-terminal kinase. Inhibitors of the THANK
CC   polypeptide are used to inhibit the activation of nuclear factor-kB in
CC   cells. The method is used to inhibit the activation of nuclear factor-kB
CC   in cells, treat pathological conditions such as toxic and septic shock,
CC   acute phase response, viral infection, radiation susceptibility,
CC   atherosclerosis, cancer, acute inflammatory conditions, arthritis,
CC   allergy, and graft versus host reaction, and inhibit growth of tumour
CC   cells such as myeloid cells, colon cancer cells, prostate cancer cells,
CC   cervical carcinoma cells, chronic myeloid leukemic cells and acute
CC   myeloid leukemic cells
XX
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 3;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 11
AAE09242
ID   AAE09242 standard; protein; 285 AA.
XX
AC   AAE09242;
```

```
XX
DT   19-NOV-2001  (first entry)
XX
DE   Human TALL-1 protein.
XX
KW   Human; TNF; tumour necrosis factor; TALL-1; APRIL; TNF receptor; TNFR;
KW   TACI; BCMA; therapy; cancer; leukaemia; myeloma; lymphoma;
KW   autoimmune disease; rheumatoid arthritis; multiple sclerosis; psoriasis.
XX
OS   Homo sapiens.
XX
PN   WO200160397-A1.
XX
PD   23-AUG-2001.
XX
PF   28-NOV-2000; 2000WO-US032378.
XX
PR   16-FEB-2000; 2000US-0182938P.
PR   22-AUG-2000; 2000US-0226986P.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Ashkenazi AJ,  Dodge KH,  Grewal I,  Kim KJ,  Marsters SA,  Pitti RM;
PI   Yan M;
XX
DR   WPI; 2001-541628/60.
DR   N-PSDB; AAD15903.
XX
PT   Inhibiting or neutralizing TALL-1 or APRIL polypeptide biological
PT   activity, for treating autoimmune disorders and cancer, comprises
PT   exposing the cells to TALL-1 or APRIL polypeptide agonists or
PT   antagonists.
XX
PS   Claim 2; Fig 3; 160pp; English.
XX
CC   The invention relates to methods of using one or more agonists or
CC   antagonists to modulate the activity of the members of TNF (tumour
CC   necrosis factor) especially TALL-1, APRIL and TNF receptor (TNFR) e.g.
CC   TACI or BCMA. The method is useful for treating pathological conditions
CC   or diseases associated with increased TALL-1 and APRIL expression or
CC   activity. TALL-1 and APRIL antagonists are used to block the interaction
CC   between APRIL and TALL-1 with TACI or BCMA. They are useful for treating
CC   a mammal suffering from cancer such as leukaemia, lymphoma, myeloma,
CC   cancers of lung and colon and autoimmune diseases e.g. rheumatoid
CC   arthritis, multiple sclerosis, psoriasis and lupus erythematosus. The
CC   present sequence is human TALL-1 protein
XX
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 4;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

```
RESULT 12
AAU12183
ID   AAU12183 standard; protein; 285 AA.
XX
AC   AAU12183;
XX
DT   24-OCT-2001  (first entry)
XX
DE   Human PRO738 polypeptide sequence.
XX
KW   Human secretory and transmembrane; PRO; mammalian; cancer; lung; breast;
KW   prostate; cervical; tumour necrosis factor-alpha; TNF-alpha; cartilage;
KW   ear; proliferation; glucose; free fatty acid; skeletal muscle; adipocyte;
KW   A-peptide; factor VIIA; gene therapy.
XX
OS   Homo sapiens.
XX
PN   WO200140466-A2.
XX
PD   07-JUN-2001.
XX
PF   01-DEC-2000; 2000WO-US032678.
XX
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   09-DEC-1999;   99US-0170262P.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005841.
PR   03-MAR-2000; 2000US-0187202P.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   05-JUN-2000; 2000US-0209832P.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2001-408281/43.
DR   N-PSDB; AAS21255.
XX
```

```
PT   Isolated , secretory and transmembrane PRO polypeptide used to detect
PT   other PRO polypeptides, link bioactive molecules to cells expressing PRO
PT   polypeptides, and detect the presence of mammalian tumors e.g. lung,
PT   breast, prostate, cervical.
XX
PS   Claim 12; Fig 24; 813pp; English.
XX
CC   AAU12172-AAU12446 represent novel human secretory and transmembrane PRO
CC   polypeptides. The PRO polypeptides are useful to detect other PRO
CC   polypeptides, to link bioactive molecules to cells expressing PRO
CC   polypeptides, to modulate biological activities of cells expressing PRO
CC   polypeptides, and to detect the presence of mammalian lung, colon,
CC   breast, prostate, rectal, cervical or liver tumours by comparing PRO
CC   polypeptide expression in a cell sample to that in a control sample. Some
CC   of the 275 sequences are also useful to stimulate the release of tumour
CC   necrosis factor-alpha (TNF-alpha) from human blood, the proliferation or
CC   differentiation of chondrocytes, the proliferation or gene expression in
CC   pericyte cells, the release of proteoglycans from cartilage, the
CC   proliferation of inner ear utricular supporting cells or of T-
CC   lymphocytes, the release of a cytokine from peripheral blood monocytes
CC   (PBMCs), or the proliferation of endothelial cells. Some of the PRO
CC   polypeptides may modulate glucose or free fatty acid uptake by skeletal
CC   muscle cells or by adipocytes; or inhibit binding of A-peptide to factor
CC   VIIA. The PRO polypeptides can be used in assays to identify molecules
CC   involved in binding interactions. The polynucleotides encoding PRO
CC   polypeptides can be used to generate probes, antisense RNA/DNA,
CC   transgenic or knock out animals and can be used in gene therapy
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 4;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 13
AAE07156
ID   AAE07156 standard; protein; 285 AA.
XX
AC   AAE07156;
XX
DT   06-NOV-2001  (first entry)
XX
DE   Human tumour necrosis factor (TNF)-delta protein.
XX
KW   Human; tumour necrosis factor; TNF-delta; gene therapy; antirheumatic;
KW   apoptosis; rheumatoid arthritis; cytostatic; sepsis; anti-inflammatory;
KW   inflammatory bowel disease; immunosuppressive; antiarthritic; tumour;
KW   antibacterial; cancer.
XX
OS   Homo sapiens.
XX
PN   US2001010925-A1.
XX
PD   02-AUG-2001.
XX
PF   17-NOV-1997;   97US-00971317.
XX
PR   17-NOV-1997;   97US-00971317.
XX
PA   (WILE/) WILEY S R.
XX
PI   Wiley SR;
XX
DR   WPI; 2001-496166/54.
DR   N-PSDB; AAD13435.
XX
PT   New tumor necrosis factors (TNF)-delta polynucleotide and polypeptide,
PT   useful in gene therapy, particularly for treating inflammation, and for
PT   inducing apoptosis in cancer and tumor-associated cells to treat cancer.
XX
PS   Claim 16; Page 36-37; 46pp; English.
XX
CC   The present sequence is human tumor necrosis factor (TNF)-delta protein.
CC   The TNF-delta polynucleotide is useful in gene therapy for modulating TNF
CC   -delta. TNF-delta is useful for treating deficiencies of TNF-delta and
CC   diseases ameliorated by TNF-delta. TNF-delta is also useful for
CC   screening, diagnosing, prognosing, staging or monitoring conditions or
CC   diseases attributable to TNF-delta, e.g. inflammation (e.g. inflammatory
CC   bowel disease, sepsis or rheumatoid arthritis). The TNF-delta is also
CC   useful as an anti-cancer agent to induce apoptosis in cancer and tumour-
CC   associated cells
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 4;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 14
AAY71978
ID   AAY71978 standard; protein; 285 AA.
XX
AC   AAY71978;
XX
DT   28-MAR-2001  (first entry)
XX
DE   Human TNF and ApoL-related Leucocyte-expressed Ligand 1 (TALL-1) protein.
XX
KW   Human; Tumour Necrosis Factor; TNF; immunosuppressant; TALL-1;
KW   Tumour necrosis factor and ApoL-related Leucocyte expressed Ligand 1;
KW   therapy; autoimmune disorder; rheumatoid arthritis; multiple sclerosis;
KW   systemic lupus erythematosus; SLE; insulin dependent diabetes mellitus;
KW   thrombocytopenia purpura; acute rheumatic fever; Goodpasture's syndrome;
KW   haemolytic anaemia; Grave's disease; myasthenia gravis; BCMA;
```

```
KW   B cell maturation factor; pemphigus vulgaris; B-lymphocyte proliferation;
KW   post-streptococcal glomerulonephritis; polyarteritis nodosa; sTALL-1;
KW   soluble TALL-1 protein.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          49. .69
FT                   /label= Transmembrane_domain
FT   Cleavage-site   133. .134
FT   Region          134. .285
FT                   /note= "Soluble TALL-1 (sTALL-1) protein. This region is
FT                   specifically claimed in claim 9"
FT   Region          145. .151
FT                   /label= Beta_strand
FT   Region          166. .168
FT                   /label= Beta_strand
FT   Region          178. .181
FT                   /label= Beta_strand
FT   Region          184. .187
FT                   /label= Beta_strand
FT   Region          192. .203
FT                   /label= Beta_strand
FT   Region          217. .222
FT                   /label= Beta_strand
FT   Region          231. .241
FT                   /label= Beta_strand
FT   Region          243. .251
FT                   /label= Beta_strand
FT   Region          256. .264
FT                   /label= Beta_strand
FT   Region          277. .284
FT                   /label= Beta_strand
XX
PN   WO200068378-A1.
XX
PD   16-NOV-2000.
XX
PF   05-MAY-2000; 2000WO-US012266.
XX
PR   06-MAY-1999;   99US-0132892P.
PR   01-MAY-2000; 2000US-0201012P.
XX
PA   (NAJE-) NAT JEWISH MEDICAL & RES CENT.
XX
PI   Shu HS;
XX
DR   WPI; 2001-016094/02.
DR   N-PSDB; AAD02122.
XX
PT   Isolated TALL-1 protein is used to identify compounds that regulate B
PT   lymphocyte proliferation, used to treat B lymphocyte associated
PT   autoimmune disorders.
XX
PS   Claim 2a; Fig 1a; 112pp; English.
XX
CC   The present invention relates to Tumour necrosis factor (TNF) and ApoL-
CC   related Leucocyte expressed Ligand 1 (TALL-1) nucleic acid molecules,
CC   proteins (including homologues), and their antibodies. The invention in
CC   particular relates to methods for regulating the interaction between TALL
CC   -1 and TALL-1 receptors (BCMA referred as B cell maturation factor) to
CC   regulate monocyte, macrophage and B lymphocyte mediated immune responses.
CC   TALL-1 protein is useful for identifying compounds that regulate B
CC   lymphocyte proliferation. It is also useful for treating B lymphocyte
CC   associated autoimmune disorders like rheumatoid arthritis, systemic lupus
CC   erythematosus (SLE), insulin dependent diabetes mellitus, multiple
CC   sclerosis, myasthenia gravis, Grave's disease, autoimmune haemolytic
CC   anaemia, autoimmune thrombocytopenia purpura, Goodpasture's syndrome,
CC   pemphigus vulgaris, acute rheumatic fever, post-streptococcal
CC   glomerulonephritis, or polyarteritis nodosa. The TALL-1 protein and its
CC   corresponding nucleic acid sequence are also useful in diagnostic assays.
CC   The present sequence is human Tumour necrosis factor (TNF) and ApoL-
CC   related Leucocyte-expressed Ligand 1 (TALL-1) protein expressed by
CC   monocytes and macrophages. TALL-1 protein is a member of TNF family. It
CC   is a type II transmembrane protein
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 4;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 15
AAY71915
ID   AAY71915 standard; protein; 285 AA.
XX
AC   AAY71915;
XX
DT   26-MAR-2001  (first entry)
XX
DE   Human TACI-ligand (TACI-L) protein.
XX
KW   Human; transmembrane activator and CAML interactor; TACI;
KW   tumour necrosis factor receptor; TNF; autoimmune disease; diabetes;
KW   calcium-signal modulating cyclophilin ligand; CAML; viral infection;
KW   neutrokine alpha polypeptide; TACI-Ligand; TACI-L; cytostatic; therapy;
KW   neuroprotective; antidiabetic; antiviral; antiinflammatory; tumour;
KW   antiarthritic; antirheumatic; immunosuppressive; multiple sclerosis;
KW   rheumatoid arthritis; graft rejection; inflammation; cell proliferation;
KW   cell death; immunoglobulin E-mediated allergic reaction; IgE.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          1. .46
FT                   /label= Intracellular_domain
FT   Domain          47. .72
FT                   /label= Transmembrane_domain
FT   Domain          73. .285
FT                   /label= Extracellular_domain
FT   Binding-site    123. .285
FT                   /label= TACI_binding_site
FT                   /note= "Binds with extracellular domain of TACI"
XX
PN   WO200067034-A1.
XX
PD   09-NOV-2000.
XX
PF   14-APR-2000; 2000WO-US010282.
XX
PR   30-APR-1999;   99US-00302863.
XX
PA   (IMMV ) IMMUNEX CORP.
XX
PI   Goodwin RG,  Din WS;
```

XX
DR WPI; 2001-016005/02.
DR N-PSDB; AAD02007.
XX
PT Use of new interactions between tumor necrosis factor receptors (TACI)
PT and TACI ligands to screen candidate molecules for determining agonist
PT and antagonist interactions which are used for treating inflammation.
XX
PS Claim 10; Fig 2b; 46pp; English.
XX
CC The present sequence is a human tumour necrosis factor receptor (TACI)-
CC ligand (TACI-L) protein. TACI (Transmembrane activator and calcium-signal
CC modulating cyclophilin ligand (CAML)-interactor) forms a complex with
CC neutrokine alpha polypeptide (TACI-Ligand). The antagonist or agonist of
CC TACI/TACI-L complex is useful for modulating an intracellular signalling
CC cascade mediated by TACI/TACI-L complex. Antagonists of TACI/TACI-L
CC complex are used to inhibit the interaction between TACI and TACI-L for
CC therapeutic purposes to treat tumour and tumour metastasis and to combat
CC various autoimmune diseases e.g. multiple sclerosis and diabetes, as well
CC as other disorders, such as viral infection, rheumatoid arthritis, graft
CC rejection, and immunoglobulin (Ig) E-mediated allergic reactions and
CC inflammation. The interaction is used to study cellular processes
CC associated with tumour necrosis factor (TNF)-receptors such as immune
CC regulation, cell proliferation, cell death and inflammatory responses.
CC The interaction between the extracellular region of TACI and TACI-L can
CC be used to further develop understanding of which cell types TACI-L acts
CC upon
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 4; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
Db 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
Db 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
Db 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
Db 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy 241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
Db 241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285

RESULT 16
AAE07879
ID AAE07879 standard; protein; 285 AA.
XX
AC AAE07879;
XX
DT 01-NOV-2001 (first entry)
XX
DE Human BAFF protein.
XX
KW Human; tumour necrosis factor; TNF; APBF; APRIL; BAFF; therapy; melanoma;
KW immune system-related disorder; cancer; renal cell; breast; stomach;
KW rectal; colon; throat; bladder; ovarian carcinoma; cellular disorder;
KW gastrointestinal; scleroderma; Kaposi's sarcoma; chronic leukaemia;
KW squamous cell carcinoma; hyperproliferative condition; pannus formation;
KW rheumatoid arthritis; postsurgical scarring; fibrosis; liver; uterine;
KW lung; immunodeficiency; inflammatory disease; lymphadenopathy; vulnerary;
KW autoimmune disease; graft versus host disease; dermatological;
KW antiinflammatory; immunosuppressive; cytostatic.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Domain 1. .46
FT /label= Intracellular_domain
FT Domain 47. .72
FT /label= Transmembrane_domain
FT Domain 73. .285
FT /label= Extracellular_domain
XX
PN WO200158949-A2.
XX
PD 16-AUG-2001.
XX
PF 08-FEB-2001; 2001WO-US004121.
XX
PR 11-FEB-2000; 2000US-0181670P.
XX
PA (BIOJ) BIOGEN INC.
XX
PI Rennert PD, Thompson JS, Ambrose C, Cachero TG;
XX
DR WPI; 2001-514644/56.
DR N-PSDB; AAD14417.
XX
PT New heteromeric ligand of tumor necrosis factor (TNF) family, useful for
PT diagnosis, treatment of immune system-related disorders in humans,
PT comprises TNF-family member APRIL subunit linked non-covalently to TNF-
PT family member BAFF subunit.
XX
PS Claim 2; Fig 2b; 42pp; English.
XX
CC The present invention relates to an isolated heteromeric ligand of tumour
CC necrosis factor (TNF)-family, referred to as APBF comprising a TNF-family
CC member APRIL subunit linked non-covalently to TNF-family member BAFF
CC subunit. APBF is useful for diagnosis or treatment of various immune
CC system-related disorders in mammals, preferably humans. Such disorders
CC include cancer, including cellular disorders, for e.g. renal cell cancer,
CC Kaposi's sarcoma, chronic leukaemia, breast cancer, sarcoma, ovarian
CC carcinoma, rectal cancer, throat cancer, melanoma, colon cancer, bladder
CC cancer, squamous cell carcinoma and gastrointestinal or stomach cancer,
CC cellular hyperproliferative conditions, such as scleroderma, pannus
CC formation in rheumatoid arthritis, postsurgical scarring and lung, liver
CC and uterine fibrosis and immunodeficiencies, inflammatory diseases,
CC lymphadenopathy, autoimmune diseases and graft versus host disease. APBF
CC is also useful for producing monoclonal or polyclonal antibodies and for
CC identifying novel modulators affecting biological function and receptors
CC interacting with APBF. The present sequence is human BAFF protein
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 4; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
Db 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
Db 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
Db 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
Db 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

```
Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              ||||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 17
AAE24636
ID AAE24636 standard; protein; 285 AA.
XX
AC AAE24636;
XX
DT 22-OCT-2002 (first entry)
XX
DE Human tumour necrosis factor (TNF)-delta protein #1.
XX
KW Human; tumour necrosis factor; TNF-delta; inflammation; cytostatic;
KW anti-cancer chemotherapy; tumour; gene therapy; antiinflammatory.
XX
OS Homo sapiens.
XX
PN US2002055624-A1.
XX
PD 09-MAY-2002.
XX
PF 17-NOV-1998; 98US-00193663.
XX
PR 17-NOV-1997; 97US-0065916P.
XX
PA (WILE/) WILEY S R.
XX
PI Wiley SR;
XX
DR WPI; 2002-489327/52.
DR N-PSDB; AAD39318.
XX
PT New tumor necrosis factor (TNF)-delta polypeptide for detecting TNF-delta
PT agonists, antagonists and antibodies and for treating cancer and
PT inflammation.
XX
PS Claim 16; Fig 1; 46pp; English.
XX
CC The invention relates to tumor necrosis factor (TNF)-delta protein and
CC its corresponding nucleic acid. TNF-delta is used for detecting the
CC presence of a target TNF-delta polynucleotide, such as mRNA, in a sample.
CC A compound which induces activation of TNF-delta is used to treat a
CC patient having a need to induce inactivation of TNF-delta. It is also
CC used to determine whether a compound is an agonist or antagonist of a TNF
CC -delta protein. A TNF-delta ligand is used to detect whether a receptor
CC binds to the ligand. An antibody to TNF-delta is used to detect TNF-delta
CC antigen in a test sample. Inhibiting TNF-delta can be used to treat
CC inflammation. TNF-delta can be used as an adjunct with anti-cancer
CC chemotherapy agents for the treatment of tumours. TNF-delta DNA is used
CC in gene therapy. The present sequence is human TNF-delta protein
XX
SQ Sequence 285 AA;

```
  Query Match           100.0%;  Score 1451;  DB 5;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 18
ABB90325
ID ABB90325 standard; protein; 285 AA.
XX
AC ABB90325;
XX
DT 24-MAY-2002 (first entry)
XX
DE Human polypeptide SEQ ID NO 2701.
XX
KW Cytostatic; immunosuppressive; nootropic; neuroprotective; antiviral;
KW antiallergic; hepatotropic; antidiabetic; antiinflammatory; antiulcer;
KW vulnerary; anticonvulsant; antibacterial; antifungal; antiparasitic;
KW cardiant; gene therapy; cancer; immune disorder; cardiovascular disorder;
KW neurological disease; infection; human; secreted protein.
XX
OS Homo sapiens.
XX
PN WO200190304-A2.
XX
PD 29-NOV-2001.
XX
PF 18-MAY-2001; 2001WO-US016450.
XX
PR 19-MAY-2000; 2000US-0205515P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Birse CE, Rosen CA;
XX
DR WPI; 2002-122018/16.
DR N-PSDB; ABL90734.
XX
PT Novel 1405 isolated polypeptides, useful for diagnosis, treatment and
PT prevention of neural, immune system, muscular, reproductive,
PT gastrointestinal, pulmonary, cardiovascular, renal and proliferative
PT disorders.
XX
PS Claim 11; SEQ ID NO 2701; 2081pp + Sequence Listing; English.
XX
CC The invention relates to novel genes (ABL89449-ABL90853) and proteins
CC (ABB89040-ABB90444) useful for preventing, treating or ameliorating
CC medical conditions e.g. by protein or gene therapy. The genes are
CC isolated from a range of human tissues disclosed in the specification.
CC The nucleic acids, proteins, antibodies and (ant)agonists are useful in
CC the diagnosis, treatment and prevention of: (a) cancer, e.g. breast and
CC ovarian cancer and other cancers of the adrenal gland, bone, bone marrow,
CC breast, gastrointestinal tract, liver, lung, or urogenital; (b) immune
CC disorders e.g. Addison's disease, allergies, autoimmune haemolytic
CC anaemia, autoimmune thyroiditis, diabetes mellitus, Crohn's disease,
CC multiple sclerosis, rheumatoid arthritis and ulcerative colitis; (c)
CC cardiovascular disorders such as myocardial ischaemias; (d) wound healing
CC ; (e) neurological diseases e.g. cerebral anoxia and epilepsy; and (f)
CC infectious diseases such as viral, bacterial, fungal and parasitic
CC infections. Note: The sequence data for this patent did not form part of
CC the printed specification, but was obtained in electronic format directly
CC from WIPO at ftp.wipo.int/pub/published_pct_sequences
XX
SQ Sequence 285 AA;

```
  Query Match           100.0%;  Score 1451;  DB 5;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
```

```
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
                 |||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 19
ABB84865
ID   ABB84865 standard; protein; 285 AA.
XX
AC   ABB84865;
XX
DT   16-MAY-2002 (first entry)
XX
DE   Human PRO738 protein sequence SEQ ID NO:98.
XX
KW   Human; angiogenesis; cardiant; cytostatic; antiangiogenic; hypotensive;
KW   vulnerary; antiarteriosclerotic; PRO agonist; PRO antagonist; trauma;
KW   gene therapy; cardiovascular disorder; endothelial disorder; cancer;
KW   angiogenic disorder; cardiac hypertrophy; atherosclerosis; hypertension;
KW   age-related macular degeneration; arterial restenosis; angina;
KW   rheumatoid arthritis; myocardial infarction; thrombophlebitis;
KW   lymphangitis; tumour angiogenesis; breast carcinoma; liver carcinoma;
KW   wound healing; chromosome mapping; gene mapping.
XX
OS   Homo sapiens.
XX
PN   WO200200690-A2.
XX
PD   03-JAN-2002.
XX
PF   20-JUN-2001; 2001WO-US019692.
XX
PR   23-JUN-2000; 2000US-0213637P.
PR   20-JUL-2000; 2000US-0219556P.
PR   25-JUL-2000; 2000US-0220624P.
PR   25-JUL-2000; 2000US-0220664P.
PR   28-JUL-2000; 2000WO-US020710.
PR   02-AUG-2000; 2000US-0222695P.
PR   17-AUG-2000; 2000US-00643657.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   07-SEP-2000; 2000US-0230978P.
PR   18-SEP-2000; 2000US-00664610.
PR   18-SEP-2000; 2000US-00665350.
PR   24-OCT-2000; 2000US-0242922P.
PR   08-NOV-2000; 2000US-00709238.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   22-JAN-2001; 2001US-00767609.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   30-MAY-2001; 2001US-00870574.
PR   30-MAY-2001; 2001WO-US017443.
PR   01-JUN-2001; 2001WO-US017800.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP, Ferrara N, Gerber H, Gerritsen ME, Goddard A;
PI   Godowski PJ, Gurney AL, Hillan KJ, Marsters SA, Pan J, Paoni NF;
PI   Stephan JF, Watanabe CK, Williams PM, Wood WI, Ye W;
XX
DR   WPI; 2002-090516/12.
DR   N-PSDB; ABL88120.
XX
PT   One hundred and eighty seven nucleic acids encoding PRO polypeptides,
PT   useful in diagnosis and treatment of cardiovascular (e.g. myocardial
PT   infarction), endothelial or angiogenic disorders in a mammal.
XX
PS   Claim 11; Fig 98; 565pp; English.
XX
CC   ABL88072 to ABL88258 encode the PRO proteins given in ABB84817 to
CC   ABB85003. The PRO proteins and polynucleotides have cardiant, cytostatic,
CC   antiangiogenic, hypotensive, vulnerary and antiarteriosclerotic
CC   activities, and can be used in gene therapy. The PRO polynucleotides,
CC   proteins, agonists and antagonists are useful for treating or diagnosing
CC   a cardiovascular, endothelial or angiogenic disorder in a mammal, e.g.
CC   cardiac hypertrophy, trauma, cancer, age-related macular degeneration,
CC   atherosclerosis, hypertension, arterial restenosis, rheumatoid arthritis,
CC   angina, myocardial infarctions, thrombophlebitis, lymphangitis, tumour
CC   angiogenesis (such as breast carcinoma and liver carcinoma) and wound
CC   healing. The PRO polynucleotides have applications in molecular biology,
CC   including use as hybridisation probes, and in chromosome and gene
CC   mapping. ABL88259 to ABL88267 represent primers and probes used in the
CC   exemplification of the present invention
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 5;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
                |||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 20
AAU79140
ID   AAU79140 standard; protein; 285 AA.
XX
AC   AAU79140;
XX
```

```
DT   02-JUL-2002 (first entry)
XX
DE   Human Neutrokine-alpha protein.
XX
KW   Human; Neutrokine-alpha; antibody; immunogen; B-cell cancer;
KW   autoimmune disease; Sjogre's syndrome; systemic lupus erythematosus;
KW   rheumatoid arthritis; chronic lymphocytic leukaemia; multiple myeloma;
KW   Hodgkin's lymphoma; non-Hodgkin's lymphoma; hypergammaglobulinemia;
KW   APRIL; a proliferation-inducing ligand; chromosome 13q34.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .133
FT                   /label= Signal_peptide
FT   Domain          1. .46
FT                   /label= Intracellular_domain
FT   Domain          31. .44
FT                   /label= CD-I
FT                   /note= "Conserved domain I"
FT   Domain          47. .72
FT                   /label= Transmembrane_domain
FT   Domain          73. .285
FT                   /label= Extracellular_domain
FT   Domain          73. .83
FT                   /label= CD-II
FT                   /note= "Conserved domain II"
FT   Domain          94. .102
FT                   /label= CD-III
FT                   /note= "Conserved domain III"
FT   Region          124. .127
FT                   /note= "N-linked glycosylation sequence"
FT   Misc-difference 124
FT                   /note= "Asn is N-glycosylated"
FT   Protein         134. .285
FT                   /label= Mature_human_Neutrokine_alpha_protein
FT                   /note= "Specifically claimed in claim 2"
FT   Region          144. .151
FT                   /label= Beta_sheet_A
FT   Domain          148. .152
FT                   /label= CD-IV
FT                   /note= "Conserved domain IV"
FT   Domain          166. .181
FT                   /label= CD-V
FT                   /note= "Conserved domain V"
FT   Region          172. .173
FT                   /label= Beta_sheet_A'
FT   Region          177. .179
FT                   /label= Beta_sheet_B'
FT   Region          183. .185
FT                   /label= Beta_sheet_B
FT   Domain          185. .209
FT                   /label= CD-VI
FT                   /note= "Conserved domain VI"
FT   Region          191. .204
FT                   /label= Beta_sheet_C
FT   Domain          210. .221
FT                   /label= CD-VII
FT                   /note= "Conserved domain VII"
FT   Region          210. .217
FT                   /label= Beta_sheet_D
FT   Domain          226. .237
FT                   /label= CD-VIII
FT                   /note= "Conserved domain VIII"
FT   Region          236. .237
FT                   /label= Beta_sheet_E
FT   Region          242. .251
FT                   /label= Beta_sheet_F
FT   Region          242. .245
FT                   /note= "N-linked glycosylation sequence"
FT   Misc-difference 242
FT                   /note= "Asn is N-glycosylated"
FT   Domain          244. .249
FT                   /label= CD-IX
FT                   /note= "Conserved domain IX"
FT   Domain          253. .265
FT                   /label= CD-X
FT                   /note= "Conserved domain X"
FT   Region          256. .263
FT                   /label= Beta_sheet_G
FT   Region          276. .284
FT                   /label= Beta_sheet_H
FT   Domain          277. .284
FT                   /label= CD-IX
FT                   /note= "Conserved domain IX"
XX
PN   WO200218620-A2.
XX
PD   07-MAR-2002.
XX
PF   15-AUG-2001; 2001WO-US025549.
XX
PR   15-AUG-2000; 2000US-0225628P.
PR   23-AUG-2000; 2000US-0227008P.
PR   22-SEP-2000; 2000US-0234338P.
PR   17-OCT-2000; 2000US-0240806P.
PR   30-NOV-2000; 2000US-0250020P.
PR   16-MAR-2001; 2001US-0276248P.
PR   25-MAY-2001; 2001US-0293499P.
PR   07-JUN-2001; 2001US-0296122P.
PR   13-JUL-2001; 2001US-0304809P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Yu G,  Ebner R,  Ni J,  Rosen CA,  Ullrich S;
XX
DR   WPI; 2002-304259/34.
DR   N-PSDB; ABK48351.
XX
PT   An isolated antibody or portion that specifically binds to a protein
PT   useful in the treatment of diseases such as hypergammaglobulinemia and
PT   cancer.
XX
PS   Claim 1; Fig 1; 482pp; English.
XX
CC   The present invention relates to a new antibody, or portion, that
CC   specifically binds to a protein which has a 285 or 250 amino acid
CC   sequence as fully defined in the specification. The antibody of the
CC   invention is useful in treating a disease or disorder such as cancer,
CC   especially B-cell cancer, autoimmune diseases such as Sjogre's syndrome,
CC   systemic lupus erythematosus, rheumatoid arthritis, chronic lymphocytic
CC   leukaemia, multiple myeloma, Hodgkin's lymphoma, non-Hodgkin's lymphoma
CC   or hypergammaglobulinemia, or in diagnosing a disease or disorder
CC   comprising assaying expression of Neutrokine-alpha and APRIL (a
CC   proliferation-inducing ligand) in cells or body fluids using antibodies
CC   and comparing the Neutrokine-alpha and APRIL expression level with a
CC   standard Neutrokine-alpha and APRIL expression level, whereby an increase
CC   or decrease in the assayed Neutrokine-alpha and APRIL expression level
CC   compared to the standard levels is indicative of a disease or disorder.
CC   The present amino acid sequence represents the human Neutrokine-alpha
CC   protein of the invention. This sequence is encoded by the human
CC   Neutrokine-alpha gene located on chromosome 13q34
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 5;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
```

```
Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 21
ABJ00715
ID ABJ00715 standard; protein; 285 AA.
XX
AC ABJ00715;
XX
DT 05-SEP-2002 (first entry)
XX
DE Human B lymphocyte stimulator protein #1.
XX
KW B lymphocyte stimulator protein binding protein; BLyS; immune disease;
KW allergy; proliferative disease; infectious disease; arteriosclerosis;
KW inflammatory disorder; hypergammaglobulinaemia; blood clotting;
KW ischaemia; graft-versus-host disease; neurodegenerative disease;
KW immunosuppressive; nephrotropic; antirheumatic; antiarthritic;
KW neuroprotective; cytostatic; immunostimulant; antitumour; anti-HIV;
KW antiasthmatic; antiallergic; thyromimetic; antianaemic; haemostatic;
KW dermatological; antiinflammatory; cardiant; ophthalmological; uropathic;
KW antidiabetic; antithyroid; antidepressant; hepatotropic.
XX
OS Homo sapiens.
XX
PN WO200216411-A2.
XX
PD 28-FEB-2002.
XX
PF 17-AUG-2001; 2001WO-US025850.
XX
PR 18-AUG-2000; 2000US-0226700P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Beltzer JP, Rotter DM, Fleming TL, Rosen CA;
XX
DR WPI; 2002-499775/53.
XX
PT The treatment of various diseases e.g. rheumatoid arthritis, comprises
PT administering B Lymphocyte stimulator binding polypeptide.
XX
PS Disclosure; Page 302-303; 387pp; English.
XX
CC The present invention relates to the treatment, prevention or
CC amelioration of a disease or disorder associated with: aberrant B
CC lymphocyte stimulator (BLyS), BLyS receptor expression or activity; cells
CC of haematopoietic origin; or proliferative disease; and reducing,
CC inhibiting or stimulating immunoglobulin production, B cell proliferation
CC and graft rejection involving administration of BLyS binding polypeptide.
CC The BLyS binding polypeptides are used in the treatment, prevention or
CC amelioration of diseases such as immune system diseases, proliferative
CC diseases, diseases of cells of hematopoietic origin, graft rejection,
CC allergies, infectious diseases, arteriosclerosis, inflammatory disorders,
CC hypergammaglobulinaemia, blood clotting disorders, ischaemia, and
CC neurodegenerative diseases. The present sequence is a B lymphocyte
CC stimulator protein
XX
SQ Sequence 285 AA;

```
  Query Match             100.0%;  Score 1451;  DB 5;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 22
ABB81485
ID ABB81485 standard; protein; 285 AA.
XX
AC ABB81485;
XX
DT 02-SEP-2002 (first entry)
XX
DE Human ZTNF4 amino acid sequence SEQ ID NO:5.
XX
KW Human; Ztnfr12; tumour necrosis factor receptor; cytostatic;
KW immunosuppressive; dermatological; antiinflammatory; antidiabetic;
KW neuroprotective; antirheumatic; antiarthritic; antiasthmatic;
KW nephrotropic; hypotensive; gene therapy; B lymphocyte; tumour;
KW autoimmune disorder; systemic lupus erythematosus; myasthenia gravis;
KW multiple sclerosis; insulin dependent diabetes mellitus; asthma;
KW rheumatoid arthritis; bronchitis; emphysema; renal disease; lymphoma;
KW glomerulonephritis; vasculitis; chronic lymphoid leukaemia; nephritis;
KW pyelonephritis; renal neoplasm; multiple myeloma; amyloidosis;
KW light chain neuropathy; hypertension; large vessel disease;
KW graft-versus host disease; graft rejection; Crohn's disease.
XX
OS Homo sapiens.
XX
PN WO200238766-A2.
XX
PD 16-MAY-2002.
XX
PF 05-NOV-2001; 2001WO-US047018.
XX
PR 07-NOV-2000; 2000US-0246449P.
PR 20-DEC-2000; 2000US-0257131P.
PR 28-JUN-2001; 2001US-0301715P.
PR 29-AUG-2001; 2001US-0315565P.
XX
PA (ZYMO) ZYMOGENETICS INC.
XX
PI Gross JA, Xu W, Henne RM, Grant FJ;
XX
DR WPI; 2002-508212/54.
XX
PT Novel isolated human tumor necrosis factor receptor polypeptide, termed
PT Ztnfr 12, useful for treating autoimmune disorders, emphysema, end stage
PT renal failure or renal disease and lymphoma.
XX
PS Disclosure; Page 134-135; 154pp; English.
XX
CC The present invention describes a human tumour necrosis factor receptor
CC designated Ztnfr12 (I). (I) has cytostatic, immunosuppressive,
CC dermatological, antiinflammatory, neuroprotective, antidiabetic,

CC antirheumatic, antiarthritic, antiasthmatic, nephrotropic and hypotensive
CC activities, and can be used in gene therapy. (I) can be used for
CC inhibiting, in a mammal, the activity of a ligand that binds Ztnfr12
CC (e.g. ZTNF4), for treating disorders and diseases associated with B
CC lymphocytes, activated B lymphocytes or resting B lymphocytes, and for
CC inhibiting the proliferation of tumour cells. (I) is useful for treating
CC autoimmune disorders such as systemic lupus erythematosus, myasthenia
CC gravis, multiple sclerosis, insulin dependent diabetes mellitus, asthma,
CC rheumatoid arthritis, bronchitis, emphysema and end stage renal failure
CC or renal disease such as glomerulonephritis, vasculitis, chronic lymphoid
CC leukaemia, nephritis, and pyelonephritis, and for treating renal
CC neoplasms, multiple myelomas, lymphomas, light chain neuropathy, or
CC amyloidosis, hypertension, large vessel diseases, graft-versus host
CC disease, graft rejection and Crohn's disease. (I) is useful for
CC modulating the immune system, for regulating B cell responses and
CC development, for modulating development of other cells, antibody
CC production and cytokine production, and for modulating T and B cell
CC communication. The present sequence represents the human ZTNF4 protein
CC which is given in the exemplification of the present invention
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 5; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 23
ABG96458
ID ABG96458 standard; protein; 285 AA.
XX
AC ABG96458;
XX
DT 11-DEC-2002 (first entry)
XX
DE Human Neutrokine-alpha.
XX
KW Human; Neutrokine-alpha; cytokine; autoimmune disease; cancer;
KW systemic lupus erythematosus; rheumatoid arthritis; Sjogren's syndrome;
KW B cell cancer; chronic lymphocytic leukaemia; multiple myeloma;
KW Hodgkin's lymphoma; non-Hodgkin's lymphoma; immunodeficiency;
KW hypergammaglobulinaemia; hypogammaglobulinaemia; rheumatic heart disease;
KW diabetes mellitus; autoimmune thyroiditis; Goodpasture's syndrome;
KW Graves' disease; myasthenia gravis; autoimmune haemolytic anaemia;
KW infertility; chronic active hepatitis; primary biliary cirrhosis;
KW inflammatory skin disease; psoriasis; allergy; atherosclerosis;
KW autoimmune thrombocytopaenia; antibody; chromosome 13q34.
XX
OS Homo sapiens.
XX
PN US2002115112-A1.
XX
PD 22-AUG-2002.
XX
PF 15-AUG-2001; 2001US-00929493.
XX
PR 23-FEB-1999; 99US-00255794.
PR 02-MAR-1999; 99US-0122388P.
PR 12-MAR-1999; 99US-0124097P.
PR 26-MAR-1999; 99US-0126599P.
PR 02-APR-1999; 99US-0127598P.
PR 16-APR-1999; 99US-0130412P.
PR 23-APR-1999; 99US-0130696P.
PR 27-APR-1999; 99US-0131278P.
PR 29-APR-1999; 99US-0131673P.
PR 28-MAY-1999; 99US-0136784P.
PR 06-JUL-1999; 99US-0142659P.
PR 27-JUL-1999; 99US-0145824P.
PR 24-NOV-1999; 99US-0167239P.
PR 03-DEC-1999; 99US-0168624P.
PR 16-DEC-1999; 99US-0171108P.
PR 23-DEC-1999; 99US-0171626P.
PR 14-JAN-2000; 2000US-0176015P.
PR 22-FEB-2000; 2000US-00507968.
PR 02-JUN-2000; 2000US-00586288.
PR 08-JUN-2000; 2000US-00588947.
PR 08-JUN-2000; 2000US-00589285.
PR 08-JUN-2000; 2000US-00589286.
PR 08-JUN-2000; 2000US-00589287.
PR 15-AUG-2000; 2000US-0225628P.
PR 23-AUG-2000; 2000US-0227008P.
PR 22-SEP-2000; 2000US-0234338P.
PR 17-OCT-2000; 2000US-0240806P.
PR 30-NOV-2000; 2000US-0250020P.
PR 16-MAR-2001; 2001US-0276248P.
PR 25-MAY-2001; 2001US-0293499P.
PR 07-JUN-2001; 2001US-0296122P.
PR 13-JUL-2001; 2001US-0304809P.
XX
PA (HUMA-) HUMAN GENOME SCI INC.
XX
PI Yu G, Ebner R, Ni J, Rosen CA, Ullrich S;
XX
DR WPI; 2002-740098/80.
DR N-PSDB; ABS76604.
XX
PT Novel antibody that binds to neutrokine-alpha protein, useful for
PT diagnosing and treating diseases or disorders, such as autoimmune
PT diseases, lupus erythematosus, rheumatoid arthritis, cancer, or an
PT immunodeficiency.
XX
PS Claim 1; Fig 1; 203pp; English.
XX
CC The invention relates to an isolated antibody (I) or its portion that
CC specifically binds to a 285 residue neutrokine-alpha protein sequence or
CC a 250 residue APRIL (proliferation inducing ligand) polypeptide sequence
CC (S2). Also included are: (1) an antibody or its portion that
CC competitively inhibits the specific binding of (I) by at least 50 or 90 %
CC ; (2) a nucleic acid encoding the antibody (I) (or its single chain); (3)
CC a vector comprising the nucleic acid; (4) a host cell comprising the
CC nucleic acid or vector; and (5) a hybridoma producing the antibody. The
CC antibody is useful for treating disease or disorder such as autoimmune
CC diseases, systemic lupus erythematosus, rheumatoid arthritis, Sjogren's
CC syndrome, cancer, preferably B cell cancer, chronic lymphocytic
CC leukaemia, multiple myeloma, Hodgkin's lymphoma and non-Hodgkin's
CC lymphoma, an immunodeficiency, hypo or hypergammaglobulinaemia, rheumatic
CC heart disease, diabetes mellitus, autoimmune thyroiditis, Goodpasture's
CC syndrome, Graves' disease, myasthenia gravis, autoimmune haemolytic
CC anaemia, infertility, chronic active hepatitis, primary biliary
CC cirrhosis, other disorders such as inflammatory skin diseases including
CC psoriasis, allergic conditions, atherosclerosis, antigen- antibody
CC complex mediated diseases and autoimmune thrombocytopaenia. The antibody
CC is also useful for diagnosing the disease or disorder, by assaying
CC expression of Neutrokine-alpha and APRIL expression level, in cells or
CC body fluid of an individual and comparing the levels with a standard
CC expression level, where an increase or decrease in the assayed Neutrokine

```
CC   -alpha and APRIL expression level compared to the standard expression
CC   level in indicative of a disease or disorder. The antibody is also useful
CC   for reducing or stimulating immunoglobulin production and to inhibit or
CC   stimulate proliferation of a cell of haematopoietic origin, preferably a
CC   B cell. The gene for Neutrokine-alpha is located on chromosome 13q34. The
CC   present sequence is a human Neutrokine-alpha protein
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 5;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 24
AAE26214
ID   AAE26214 standard; protein; 285 AA.
XX
AC   AAE26214;
XX
DT   14-NOV-2002  (first entry)
XX
DE   Human neutrokine-alpha protein #1.
XX
KW   Human; neutrokine-alpha protein; Hashimoto's thyroiditis; dermatitis;
KW   rheumatoid arthritis; leukaemia; acquired immune deficiency syndrome;
KW   multiple sclerosis; uveitis ophthalmia; diabetes; lupus erythematosus;
KW   pneumonia; meningitis; gonorrhoea; hepatitis; Crohn's disease; asthma;
KW   tumour; tumour metastasis; autoimmune disease; graft versus host disease;
KW   infection; immunodeficiency; antibody therapy; antibacterial; virucide;
KW   antiinflammatory; immunosuppressive; antianaemic; ophthalmological;
KW   thyromimetic; dermatological; neuroprotective; cytostatic; hepatotropic.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          31. .44
FT                   /note= "Conserved domain-I"
FT   Domain          47. .72
FT                   /note= "Transmembrane domain"
FT   Domain          73. .83
FT                   /note= "Conserved domain-II"
FT   Domain          94. .102
FT                   /note= "Conserved domain-III"
FT   Modified-site   124
FT                   /note= "N-glycosylation site"
FT   Modified-site   128
FT                   /note= "N-glycosylation site"
FT   Domain          148. .152
FT                   /note= "Conserved domain-IV"
FT   Domain          166. .181
FT                   /note= "Conserved domain-V"
FT   Domain          185. .209
FT                   /note= "Conserved domain-VI"
FT   Domain          210. .221
FT                   /note= "Conserved domain-VII"
FT   Domain          226. .237
FT                   /note= "Conserved domain-VIII"
FT   Modified-site   242
FT                   /note= "N-glycosylation site"
FT   Modified-site   243
FT                   /note= "N-glycosylation site"
FT   Domain          244. .249
FT                   /note= "Conserved domain-IX"
FT   Domain          253. .265
FT                   /note= "Conserved domain-X"
FT   Domain          277. .285
FT                   /note= "Conserved domain-XI"
XX
PN   US6403770-B1.
XX
PD   11-JUN-2002.
XX
PF   08-JUN-2000; 2000US-00589287.
XX
PR   25-OCT-1996;   96WO-US017957.
PR   14-JAN-1997;   97US-0036100P.
PR   12-JAN-1998;   98US-00005874.
PR   23-FEB-1999;   99US-00255794.
PR   02-MAR-1999;   99US-0122388P.
PR   12-MAR-1999;   99US-0124097P.
PR   26-MAR-1999;   99US-0126599P.
PR   02-APR-1999;   99US-0127598P.
PR   16-APR-1999;   99US-0130412P.
PR   23-APR-1999;   99US-0130696P.
PR   27-APR-1999;   99US-0131278P.
PR   29-APR-1999;   99US-0131673P.
PR   28-MAY-1999;   99US-0136784P.
PR   06-JUL-1999;   99US-0142659P.
PR   27-JUL-1999;   99US-0145824P.
PR   24-NOV-1999;   99US-0167239P.
PR   03-DEC-1999;   99US-0168624P.
PR   16-DEC-1999;   99US-0171108P.
PR   23-DEC-1999;   99US-0171626P.
PR   14-JAN-2000; 2000US-0176015P.
PR   22-FEB-2000; 2000US-00507968.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Yu G,  Ebner R,  Ni J,  Rosen CA;
XX
DR   WPI; 2002-634572/68.
DR   N-PSDB; AAD43528.
XX
PT   Novel isolated antibody or its portion that binds to neutrokine-alpha
PT   protein, useful to treat, prevent, prognose and/or diagnose
PT   immunodeficiencies, inflammatory diseases, autoimmune disease and tumor.
XX
PS   Claim 1; Col 251-254; 176pp; English.
XX
CC   The present invention relates to a novel antibody or its portion that
CC   specifically binds to neutrokine-alpha proteins. Antibodies of the
CC   invention are useful for detecting neutrokine-alpha protein. They are
CC   useful to prevent, treat, prognose and/or diagnose rheumatoid arthritis,
CC   Hashimoto's thyroiditis, dermatitis, leukaemia, AIDS (acquired immune
CC   deficiency syndrome), multiple sclerosis, uveitis ophthalmia, diabetes,
CC   lupus erythematosus, pneumonia, meningitis, gonorrhoea, hepatitis,
CC   Crohn's disease and asthma. Sequences of the invention are useful to
CC   treat, prevent, prognose and/or diagnose tumour, tumour metastasis,
CC   infections by bacteria, viruses and other parasites, immunodeficiencies,
CC   inflammatory diseases, autoimmune disease, graft versus host disease.
CC   They are useful in antibody therapy. The present sequence is human
CC   neutrokine-alpha protein
XX
SQ   Sequence 285 AA;
```

```
  Query Match           100.0%;  Score 1451;  DB 5;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 25
ABP47217
ID   ABP47217 standard; protein; 285 AA.
XX
AC   ABP47217;
XX
DT   19-AUG-2002  (first entry)
XX
DE   Human BLyS binding scFv VH CDR3 SEQ ID 3228.
XX
KW   BLys; B lymphocyte stimulator; TNF superfamily; human; cytostatic;
KW   tumour necrosis factor; B cell proliferation; B cell differentiation;
KW   immunosuppressive; immunostimulant; immunomodulatory; antirheumatic;
KW   antiAIDS; vaccine; cancer; immune; autoimmune disorder; immunodeficiency;
KW   systemic lupus erythematosus; rheumatoid arthritis; CVID; AIDS;
KW   common variable immunodeficiency; acquired immunodeficiency syndrome.
XX
OS   Homo sapiens.
XX
PN   WO200202641-A1.
XX
PD   10-JAN-2002.
XX
PF   15-JUN-2001; 2001WO-US019110.
XX
PR   16-JUN-2000; 2000US-0212210P.
PR   17-OCT-2000; 2000US-0240816P.
PR   16-MAR-2001; 2001US-0276248P.
PR   21-MAR-2001; 2001US-0277379P.
PR   25-MAY-2001; 2001US-0293499P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
PA   (CAMB-) CAMBRIDGE ANTIBODY TECHNOLOGY.
XX
PI   Ruben SM,  Barash SC,  Choi GH,  Vaughan T,  Hilbert D;
XX
DR   WPI; 2002-114799/15.
XX
PT   Antibodies against B Lymphocyte Stimulating polypeptides, useful for the
PT   diagnosis and treatment of cancers and immune disorders.
XX
PS   Example 14; Page 3138-3139; 3148pp; English.
XX
CC   This invention describes novel antibodies that immunospecifically bind to
CC   B Lymphocyte Stimulator (BLyS) polypeptides. BLyS is a member of the
CC   tumour necrosis factor (TNF) super family and induces B cell
CC   proliferation and differentiation. The antibodies of the invention have
CC   cytostatic, immunosuppressive, immunostimulant, immunomodulatory,
CC   antirheumatic and antiAIDS activity and can be used in vaccines to
CC   inhibit the expression and activity of BLyS. The antibodies bind to BLyS
CC   and so may be used to detect and quantitate the presence of BLyS in
CC   biological samples and may be used in this way to diagnose disease
CC   associated with aberrant expression of BLyS. They may also be
CC   administered to treat diseases associated with aberrant BLyS expression
CC   and activity such as cancer, immune, and autoimmune disorders and
CC   diseases, e.g. systemic lupus erythematosus, rheumatoid arthritis,
CC   immunodeficiency (e.g. common variable immunodeficiency (CVID) and
CC   acquired immunodeficiency syndrome (AIDS)). ABP43990-ABP47228 represent
CC   the antibodies and fragments of the antibodies described in the method of
CC   the invention
XX
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 5;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 26
ABG33576
ID   ABG33576 standard; protein; 285 AA.
XX
AC   ABG33576;
XX
DT   15-JUL-2002  (first entry)
XX
DE   Human B Lymphocyte Stimulator (BLyS) protein #1.
XX
KW   B Lymphocyte Stimulator protein; B Lymphocyte Stimulator binding peptide;
KW   BLyS; biological fluid; serum; plasma; lymph; blood; urine; spinal fluid;
KW   synovial fluid; saliva; mucus; human.
XX
OS   Homo sapiens.
XX
PN   WO200216412-A2.
XX
PD   28-FEB-2002.
XX
PF   17-AUG-2001; 2001WO-US025891.
XX
PR   18-AUG-2000; 2000US-0226489P.
XX
PA   (DYAX-) DYAX CORP.
XX
PI   Beltzer JP,  Potter MD,  Fleming TJ,  Ladner RC;
XX
DR   WPI; 2002-351647/38.
XX
PT   New B-lymphocyte stimulator binding polypeptide useful in detecting or
PT   isolating BLyS or BLyS-like polypeptide comprises a specified amino acid
PT   sequence.
```

XX
PS Disclosure; Page 184-185; 269pp; English.
XX
CC The invention relates to a B Lymphocyte Stimulator (BLyS) binding
CC polypeptide. BLyS binding peptides bind BLyS or BLyS-like proteins
CC reversibly or irreversibly. The binding peptides are used in detection,
CC isolation and/or purification of BLyS in a solution such as water or a
CC buffer solution, as well as any fluid and/or cell obtained from an
CC individual biological fluid, body tissue, body cell, cell line, tissue
CC culture or other source containing BLyS or BLyS-like polypeptides. The
CC biological fluids include sera, plasma, lymph, blood, blood fraction,
CC urine, synovial fluid, spinal fluid, saliva and mucous. Sequences
CC ABG33576, ABG33577 and ABG33847 represent human B Lymphocyte Stimulator
CC proteins
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 5; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 27
AAE28963
ID AAE28963 standard; protein; 285 AA.
XX
AC AAE28963;
XX
DT 27-JAN-2003 (first entry)
XX
DE Human ZTN4 protein.
XX
KW Human; tumour; B-cell maturation antigen; transmembrane activator;
KW calcium-modulator; cyclophilin ligand-interactor; TACI; gene therapy;
KW neoplasm; chronic lymphocytic leukaemia; lymphoproliferative disease;
KW non-Hodgkin's lymphoma; light chain gammopathy; inflammation; asthma;
KW BCMA; multiple myeloma; ZTN4 protein.
XX
OS Homo sapiens.
XX
PN WO200266516-A2.
XX
PD 29-AUG-2002.
XX
PF 06-FEB-2002; 2002WO-US003500.
XX
PR 20-FEB-2001; 2001US-0270274P.
PR 12-APR-2001; 2001US-0283447P.
XX
PA (ZYMO) ZYMOGENETICS INC.
XX
PI Kindsvogel W;
XX
DR WPI; 2002-723183/78.
XX
PT B-cell maturation antigen and transmembrane activator and calcium-
PT modulator and cyclophilin ligand-interactor, useful for treating
PT disorders e.g. inflammation or lymphoma.
XX
PS Disclosure; Page 67; 67pp; English.
XX
CC The invention relates to the manufacture of a composition for inhibiting
CC the proliferation of tumour cells. The method involves using an antibody
CC component that binds both the B-cell maturation antigen (BCMA) and the
CC transmembrane activator and calcium-modulator and cyclophilin ligand-
CC interactor (TACI). BCMA and TACI binding antibody compositions are useful
CC for inhibiting proliferation of tumour cells, particularly inhibiting
CC ZTNF4 activity in a mammal associated with increased endogenous antibody
CC production or a disorder consisting of neoplasm, chronic lymphocytic
CC leukaemia, multiple myeloma, non-Hodgkin's lymphoma, post-transplantation
CC lymphoproliferative disease or light chain gammopathy or inflammation
CC e.g. asthma. The invention is also useful in gene therapy. The present is
CC human ZTN4 protein. This sequence is used in the invention
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 5; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 28
AAU75409
ID AAU75409 standard; protein; 285 AA.
XX
AC AAU75409;
XX
DT 09-APR-2002 (first entry)
XX
DE Neutrokine-alpha (B lymphocyte stimulator BLyS).
XX
KW Tumour necrosis factor; TNF; cytostatic; arteriosclerosis; analgesic;
KW cerebroprotective; nootropic; neuroprotective; hepatotropic;
KW immunoglobulin production; B cell proliferation; immunosuppressive; HIV;
KW human immunodeficiency virus; autoimmune disease; immunodeficiency;
KW Sjogren's syndrome; systemic lupus erythematosus; Hodgkin's disease;
KW common variable immunodeficiency; CVID; non-Hodgkin's lymphoma; AIDS;
KW acquired immunodeficiency virus; cancer; multiple myeloma; CLL;
KW chronic lymphocytic leukaemia; lymphoproliferative disorder;
KW bacterial infection; viral infection; osteoporosis; atherosclerosis;
KW pain; cardiovascular disorder; stroke; allergy; Alzheimer's disease;
KW neurodegenerative disease; inflammation; liver disease; cirrhosis;
KW cardiomyopathy; diabetes; asthma; psoriasis; glomerulonephritis;
KW ulcerative colitis; angiogenesis; septic shock; wound healing;
KW neutrokine-alpha; B lymphocyte stimulator; BLyS.
XX

```
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Peptide         1. .133
FT                   /label= Signal_peptide
FT   Protein         134. .285
FT                   /label= Mature_neurokine-alpha
FT                   /note= "Specifically claimed in claim 5"
XX
PN   WO200196528-A2.
XX
PD   20-DEC-2001.
XX
PF   14-JUN-2001; 2001WO-US019026.
XX
PR   15-JUN-2000; 2000US-0211537P.
PR   23-OCT-2000; 2000US-0241952P.
PR   13-DEC-2000; 2000US-0254875P.
PR   16-MAR-2001; 2001US-0276248P.
PR   23-MAR-2001; 2001US-0277978P.
PR   25-MAY-2001; 2001US-0293499P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Yu G,  Ni J,  Gentz RL,  Dillon PJ,  Hilbert D;
XX
DR   WPI; 2002-130727/17.
XX
PT   Novel multimeric human tumor necrosis factor delta or epsilon protein
PT   useful for treating cancer, immune system disorders, infection,
PT   cardiovascular disorders, liver disease, cardiomyopathy, diabetes and
PT   psoriasis.
XX
PS   Claim 5; Page 342-343; 344pp; English.
XX
CC   The invention describes a multimeric human tumour necrosis factor (TNF)
CC   delta or epsilon protein (I). (I) or a composition containing them (II)
CC   are useful for modulating immunoglobulin production or proliferation of B
CC   cells. (I) or (II) is useful: for treating a disease or disorder of the
CC   immune system, preferably an autoimmune disease (e.g. Sjogren's syndrome,
CC   systemic lupus erythematosus or common variable immunodeficiency (CVID));
CC   an immunodeficiency e.g. acquired immunodeficiency syndrome (AIDS);
CC   cancer of the immune system (e.g. Hodgkin's disease, non-Hodgkin's
CC   lymphoma, multiple myeloma and chronic lymphocytic leukaemia (CLL)); in
CC   the diagnosis and treatment or prevention of cancer, lymphoproliferative
CC   disorder, bacterial and viral infections, osteoporosis, atherosclerosis,
CC   pain, cardiovascular disorders (e.g. stroke), allergy, inflammation,
CC   neurodegenerative disease (e.g. Alzheimer's disease), liver disease (e.g.
CC   cirrhosis), cardiomyopathy, diabetes, asthma, psoriasis, septic shock,
CC   glomerulonephritis, ulcerative colitis, arteriosclerosis; for promoting
CC   angiogenesis and wound healing; as a diagnostic research reagent; as an
CC   agent to target and kill cells expressing a TNFdelta and/or TNFepsilon
CC   receptor; in apoptosis of transformed cell lines; mediation of cell
CC   activation and proliferation; and as an immunogen to produce (II). (II)
CC   is useful to purify, detect and target (I), for measuring levels of (I)
CC   in biological samples, for immunophenotyping samples, and to treat,
CC   inhibit or prevent diseases and disorders associated with aberrant
CC   expression and/or activity of (I). This is the amino acid sequence of
CC   neutrokine-alpha (or B lymphocyte stimulator BLyS) which forms
CC   heteromultimers with tumour necrosis factor (TNF) delta or epsilon,
CC   described in the method of the invention
XX
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 5;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 29
AAU10942
ID   AAU10942 standard; protein; 285 AA.
XX
AC   AAU10942;
XX
DT   12-MAR-2002  (first entry)
XX
DE   Human AGP-3.
XX
KW   Human; AGP-3; antiinflammatory; antiarthritic; immunosuppressive;
KW   dermatological; neuroprotective; nootropic; immunomodulator; metabolic;
KW   antidiabetic; analgesic; nephrotropic; osteopathic; cytostatic; fever;
KW   antiparkinsonian; antipsoriatic; vasotropic; antibacterial; asthma;
KW   AGP-3 receptor; tumour necrosis factor ligand family; AGP-3 receptor;
KW   mesenteric lymph node; AGP-3R; inflammatory disease; immune disorder;
KW   rheumatoid arthritis; graft-versus-host disease; Crohn's disease;
KW   pancreatitis; amyotrophic lateral sclerosis; ALS; Alzheimer's disease;
KW   diabetes; glomerulonephritis; inflammatory bowel disease; ischaemia;
KW   multiple sclerosis; Parkinson's disease; transgenic animal.
XX
OS   Homo sapiens.
XX
PN   WO200185782-A2.
XX
PD   15-NOV-2001.
XX
PF   12-FEB-2001; 2001WO-US004568.
XX
PR   11-FEB-2000; 2000US-0181800P.
XX
PA   (AMGE-) AMGEN INC.
XX
PI   Boyle WJ,  Hsu H;
XX
DR   WPI; 2002-049441/06.
DR   N-PSDB; AAS18544.
XX
PT   Composition,useful for identifying modulator of receptor for treating
PT   asthma and glomerulonephritis, comprises AGP-3 (tumor necrosis factor
PT   ligand family member) receptor and encoding nucleic acids.
XX
PS   Disclosure; Fig 1; 124pp; English.
XX
CC   The invention relates to a composition (I) comprising AGP-3 receptor
CC   (tumour necrosis factor ligand family member) related protein (II)
CC   attached to a vehicle protein. (I) is useful for modulating AGP-3-related
CC   activity in mesenteric lymph nodes (MLN) of a mammal. (II) is useful in
CC   assays to identify cells and tissues that express AGP-3R or proteins
CC   related to AGP-3R-related protein and for identifying compounds (agonists
CC   or antagonists) that interact with AGP-3R proteins. (II) is also useful
CC   for identifying intracellular proteins that interact with the respective
CC   cytoplasmic domains by yeast two-hybrid screening process. (II) is
CC   involved in B cell growth, survival and activation particularly in lymph
CC   node, spleen, and Peyer's patches. AGP-3R agonists and antagonists
CC   identified using (II) are used for modulating B cell response and are
CC   used to treat diseases characterised by inflammatory processes or
```

```
CC   deregulated immune response such as rheumatoid arthritis, graft-versus-
CC   host disease, Crohn's disease, lupus, etc. (II) is also useful in the
CC   production of hybridoma cells which are derived from B cells, which
CC   involves treating the hybridoma cells with (II). (II) is useful in the
CC   treatment of inflammatory conditions of joints, e.g., rheumatoid
CC   arthritis, osteoarthritis, etc. (II), its agonists or antagonists are
CC   useful for treating acute pancreatitis, amyotrophic lateral sclerosis
CC   (ALS), Alzheimer's disease, asthma, atherosclerosis, cachexia/anorexia,
CC   diabetes, fever, glomerulonephritis, inflammatory bowel disease,
CC   ischaemic injury including cerebral ischaemia, multiple myeloma, multiple
CC   sclerosis, osteoporosis, Parkinson's disease, pain, reperfusion injury,
CC   septic shock, etc. The nucleic acids are also useful for developing
CC   transgenic animals expressing (II), which are useful for producing the
CC   polypeptides and for the study of in vivo biological activity. The
CC   present sequence represents the amino acid sequence of human AGP-3
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 5;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 30
ABB95471
ID   ABB95471 standard; protein; 285 AA.
XX
AC   ABB95471;
XX
DT   19-JUL-2002  (first entry)
XX
DE   Human angiogenesis related protein PRO738 SEQ ID NO: 98.
XX
KW   Human; angiogenesis; PRO protein; cardiovascularisation; wound; cancer;
KW   atherosclerosis; cardiac hypertrophy; gene therapy; endothelial disorder;
KW   cardiant; cytostatic; antiangiogenic; hypotensive; vulnerary;
KW   antiarteriosclerotic.
XX
OS   Homo sapiens.
XX
PN   WO200208284-A2.
XX
PD   31-JAN-2002.
XX
PF   09-JUL-2001; 2001WO-US021735.
XX
PR   20-JUL-2000; 2000US-0219556P.
PR   25-JUL-2000; 2000US-0220624P.
PR   25-JUL-2000; 2000US-0220664P.
PR   28-JUL-2000; 2000WO-US020710.
PR   02-AUG-2000; 2000US-0222695P.
PR   17-AUG-2000; 2000US-00643657.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   07-SEP-2000; 2000US-0230978P.
PR   18-SEP-2000; 2000US-00664610.
PR   18-SEP-2000; 2000US-00665350.
PR   24-OCT-2000; 2000US-0242922P.
PR   08-NOV-2000; 2000US-00709238.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   22-JAN-2001; 2001US-00767609.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   30-MAY-2001; 2001US-00870574.
PR   30-MAY-2001; 2001WO-US017443.
PR   01-JUN-2001; 2001WO-US017800.
PR   20-JUN-2001; 2001WO-US019692.
XX
PA   (GETH ) GENENTECH INC.
PA   (BAKE/) BAKER K P.
PA   (FERR/) FERRARA N.
PA   (GERB/) GERBER H.
PA   (GERR/) GERRITSEN M E.
PA   (GODD/) GODDARD A.
PA   (GODO/) GODOWSKI P J.
PA   (GURN/) GURNEY A L.
PA   (HILL/) HILLAN K J.
PA   (MARS/) MARSTERS S A.
PA   (PANJ/) PAN J.
PA   (PAON/) PAONI N F.
PA   (STEP/) STEPHAN J F.
PA   (WATA/) WATANABE C K.
PA   (WILL/) WILLIAMS P M.
PA   (WOOD/) WOOD W I.
XX
PI   Baker KP,  Ferrara N,  Gerber H,  Gerritsen ME,  Goddard A;
PI   Godowski PJ,  Gurney AL,  Hillan KJ,  Marsters SA,  Pan J,  Paoni NF;
PI   Stephan JF,  Watanabe CK,  Williams PM,  Wood WI,  Ye W;
XX
DR   WPI; 2002-171999/22.
DR   N-PSDB; ABL95609.
XX
PT   One hundred and eighty seven nucleic acids encoding PRO polypeptides,
PT   useful in diagnosis and treatment of cardiovascular (e.g. myocardial
PT   infarction), endothelial or angiogenic disorders in a mammal.
XX
PS   Claim 11; Fig 98; 567pp; English.
XX
CC   The present invention provides the protein and coding sequences of human
CC   PRO proteins. These are useful for treating or diagnosing a
CC   cardiovascular, endothelial or angiogenic disorder, including cardiac
CC   hypertrophy, trauma, cancer, age-related macular degeneration,
CC   atherosclerosis, hypertension, arterial restenosis, rheumatoid arthritis,
CC   angina, myocardial infarctions, thrombophlebitis, lymphangitis, tumour
CC   angiogenesis (such as breast carcinoma and liver carcinoma) and wound
CC   healing. The present sequence is a PRO protein of the invention
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 5;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 31
ABO17627
ID ABO17627 standard; protein; 285 AA.
XX
AC ABO17627;
XX
DT 26-AUG-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO; antiinflammatory;
KW antiarteriosclerotic; cardiant; anti-infertility; anti-HIV; cytostatic;
KW antidiabetic; gene therapy; tumour necrosis factor (TNF)-alpha release;
KW TNF-alpha release; cell proliferation; cell differentiation;
KW gene expression modulator; proteoglycan release; cytokine release;
KW tumour; inflammatory disease; organ failure; atherosclerosis;
KW cardiac injury; infertility; birth defect; premature aging; AIDS;
KW acquired immunodeficiency syndrome; cancer; diabetic complication;
KW chromosome mapping; gene mapping; pharmaceutical; diagnostic; biosensor;
KW bioreactor; tissue typing.
XX
OS Homo sapiens.
XX
PN US2003032156-A1.
XX
PD 13-FEB-2003.
XX
PF 06-MAY-2002; 2002US-00140474.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.

PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-341980/32.
DR N-PSDB; ACD23864.
XX
PT New secreted and transmembrane PRO nucleic acids, for treating
PT inflammation, organ failure, atherosclerosis, cardiac injury,
PT infertility, birth defects, premature aging, axquired immunodeficiency
PT syndrome (AIDS), or cancer.
XX
PS Claim 12; Fig 24; 660pp; English.
XX
CC The invention describes an isolated nucleic acid (I) comprising, or which
CC has 80 % sequence identity to, or the full-length coding sequence of, one
CC of 275 nucleotide sequences, and which encodes a corresponding
CC polypeptide selected from 275 amino acid sequences, where all sequences
CC are given in the specification. The polypeptide encoded by (I) is used to
CC detect PRO polypeptides, link a bioactive molecule to a cell expressing a
CC PRO polypeptide, modulate a biological activity of a cell, stimulate the
CC release of tumour necrosis factor (TNF)-alpha from human blood, modulate
CC the uptake of glucose or free fatty acid by cells, stimulate or inhibit
CC the proliferation or differentiation of cells or gene expression,
CC stimulate the release of proteoglycans, stimulate the release of cytokine
CC from peripheral blood mononuclear cells, inhibit the binding of A-peptide
CC to factor VIIA, or detect the presence of tumour in a mammal. The nucleic
CC acid and polypeptide encoded by it, are useful for treating inflammatory
CC diseases, organ failure, atherosclerosis, cardiac injury, infertility,
CC birth defects, premature aging, acquired immunodeficiency syndrome
CC (AIDS), cancer, or diabetic complications. The nucleic acid is useful as
CC hybridisation probes, in chromosome and gene mapping, and in generating
CC antisense RNA or DNA. The polypeptides are useful as pharmaceuticals,
CC diagnostics, biosensors or bioreactors. Both are useful in tissue typing.
CC This is the amino acid sequence of a novel human secreted and
CC transmembrane PRO polypeptide
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 32
AAE35212

ID AAE35212 standard; protein; 285 AA.
XX
AC AAE35212;
XX
DT 28-MAY-2003 (first entry)
XX
DE Human tumour necrosis factor-like protein (ZTNF) 4 protein.
XX
KW Transmembrane activator; calcium modulator; nephrotropic; antibacterial;
KW TACI; tumour necrosis factor-like protein; ZTNF2; ZTNF4; immunoglobulin;
KW anaemia; gene therapy; cytostatic; antiinflammatory; immunosuppressive;
KW glomerulonephritis; asthma; bronchitis; graft rejection; septic shock;
KW dermatological; neuroprotective; cyclophilin ligand-interactor; human;
KW autoimmune disease; systemic lupus erythematosus; multiple sclerosis;
KW diabetes mellitus; rheumatoid arthritis; renal disease; inflammation.
XX
OS Homo sapiens.
XX
PN WO200294852-A2.
XX
PD 28-NOV-2002.
XX
PF 20-MAY-2002; 2002WO-US015910.
XX
PR 24-MAY-2001; 2001US-0293343P.
XX
PA (ZYMO) ZYMOGENETICS INC.
XX
PI Rixon MW, Gross JA;
XX
DR WPI; 2003-148455/14.
XX
PT Transmembrane activator and calcium modulator and cyclophilin ligand-
PT interactor (TACI)-immunoglobulin fusion protein, for treating cancer or
PT diabetes, comprises a TACI receptor group and an immunoglobulin group.
XX
PS Disclosure; Col 88-89; 71pp; English.
XX
CC The invention relates to fusion proteins comprising transmembrane
CC activator and calcium modulator and cyclophilin ligand-interactor (TACI)
CC receptor group that binds tumour necrosis factor-like protein (ZTNF)2 or
CC ZTNF4; and an immunoglobulin group comprising a constant region of an
CC immunoglobulin. The invention is used to manufacture a medicament for
CC inhibiting the proliferation of tumour cells in a mammalian subject. The
CC composition comprising the fusion protein may also be used in treating
CC autoimmune diseases (e.g. systemic lupus erythematosus, multiple
CC sclerosis, diabetes mellitus, rheumatoid arthritis and asthma), renal
CC diseases (e.g. glomerulonephritis), bronchitis, inflammation, graft
CC rejection, anaemia and septic shock. The fusion proteins are also used in
CC gene therapy. The present sequence is human ZTNF4 protein
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
```

```
Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 33
AAE37301
ID   AAE37301 standard; protein; 285 AA.
XX
AC   AAE37301;
XX
DT   07-AUG-2003  (first entry)
XX
DE   Human neutrokine-alpha protein.
XX
KW   Neutrokine-alpha; splice variant; SV; therapy; immune system; cancer;
KW   leukaemia; metastatic tumour; cytostatic; human; chromosome 13q34.
XX
OS   Homo sapiens.
XX
FH   Key             Location/Qualifiers
FT   Domain          1. .46
FT                   /note= "Intracellular domain"
FT   Domain          31. .44
FT                   /note= "Conserved domain (CD) I"
FT   Domain          47. .83
FT                   /note= "Conserved domain (CD) II"
FT   Domain          47. .72
FT                   /note= "Transmembrane domain"
FT   Domain          73. .285
FT                   /note= "Extracellular domain"
FT   Domain          94. .102
FT                   /note= "Conserved domain (CD) III"
FT   Modified-site   124. .127
FT                   /note= "N-glycosylation site"
FT   Domain          148. .152
FT                   /note= "Conserved domain (CD) IV"
FT   Domain          166. .181
FT                   /note= "Conserved domain (CD) V"
FT   Domain          185. .209
FT                   /note= "Conserved domain (CD) VI"
FT   Domain          210. .221
FT                   /note= "Conserved domain (CD) VII"
FT   Domain          226. .237
FT                   /note= "Conserved domain (CD) VIII"
FT   Modified-site   242. .245
FT                   /note= "N-glycosylation site"
FT   Domain          244. .249
FT                   /note= "Conserved domain (CD) IX"
FT   Domain          253. .265
FT                   /note= "Conserved domain (CD) X"
FT   Domain          277. .284
FT                   /note= "Conserved domain (CD) XI"
XX
PN   WO2003033658-A2.
XX
PD   24-APR-2003.
XX
PF   16-OCT-2002; 2002WO-US032910.
XX
PR   17-OCT-2001; 2001US-0329508P.
PR   18-OCT-2001; 2001US-0329747P.
PR   31-OCT-2001; 2001US-0330835P.
PR   16-NOV-2001; 2001US-0331478P.
PR   07-DEC-2001; 2001US-0336726P.
PR   01-APR-2002; 2002US-0368548P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Yu G,  Ebner R,  Ni J,  Rosen CA,  Laird MW,  Ullrich S;
XX
DR   WPI; 2003-421321/39.
DR   N-PSDB; AAD56375.
XX
PT   Treating immune system cancer or leukemia involves administering to
PT   individual Neutrokine-alpha polypeptide.
XX
PS   Claim 1; Fig 1; 520pp; English.
XX
CC   The invention relates to a method for treating immune system cancer or
CC   leukaemia by administering to an individual, a neutrokine-alpha or
CC   neutrokine-alpha splice variant (SV) protein. The method is useful for
CC   treating cancer of immune system, such as metastatic tumour, or
CC   leukaemia. The present sequence is human neutrokine-alpha protein. Human
CC   neutrokine-alpha gene is located at chromosome 13q34. This sequence is
CC   used to illustrate the method of the invention
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 34
ABU80881
ID   ABU80881 standard; protein; 285 AA.
XX
AC   ABU80881;
XX
DT   23-JUN-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO polypeptide; secreted and transmembrane protein;
KW   anti-PRO antibody; diagnostic assay; gene expression; diabetes;
KW   bone disorder; cartilage disorder; rheumatoid arthritis; obesity;
KW   sports injury; osteoarthritis; hyper-insulinaemia; hypo-insulinaemia;
KW   hearing loss; coagulation disorder; stroke; heart attack; cardiant;
KW   antidiabetic; anorectic; vulnerary; antiarthritic; osteopathic;
KW   antirheumatic; auditory; cerebroprotective; angiogenic.
XX
OS   Homo sapiens.
XX
PN   US2003004311-A1.
XX
PD   02-JAN-2003.
XX
PF   19-DEC-2001; 2001US-00028072.
XX
PR   18-JUN-1997;   97US-0049911P.
PR   26-AUG-1997;   97US-0056974P.
PR   17-SEP-1997;   97US-0059113P.
PR   17-SEP-1997;   97US-0059115P.
PR   17-SEP-1997;   97US-0059117P.
PR   17-SEP-1997;   97US-0059122P.
```

PR 17-SEP-1997; 97US-0059184P.
PR 18-SEP-1997; 97US-0059263P.
PR 19-SEP-1997; 97US-0059352P.
PR 19-SEP-1997; 97US-0059588P.
PR 24-SEP-1997; 97US-0059836P.
PR 17-OCT-1997; 97US-0062250P.
PR 17-OCT-1997; 97US-0062285P.
PR 17-OCT-1997; 97US-0062287P.
PR 17-OCT-1997; 97US-0063755P.
PR 24-OCT-1997; 97US-0062814P.
PR 24-OCT-1997; 97US-0062816P.
PR 24-OCT-1997; 97US-0063045P.
PR 24-OCT-1997; 97US-0063082P.
PR 24-OCT-1997; 97US-0063127P.
PR 27-OCT-1997; 97US-0063327P.
PR 27-OCT-1997; 97US-0063329P.
PR 28-OCT-1997; 97US-0063550P.
PR 28-OCT-1997; 97US-0063561P.
PR 29-OCT-1997; 97US-0063704P.
PR 29-OCT-1997; 97US-0063733P.
PR 29-OCT-1997; 97US-0063735P.
PR 29-OCT-1997; 97US-0063738P.
PR 03-NOV-1997; 97US-0064248P.
PR 07-NOV-1997; 97US-0064809P.
PR 12-NOV-1997; 97US-0065186P.
PR 17-NOV-1997; 97US-0065846P.
PR 21-NOV-1997; 97US-0066364P.
PR 24-NOV-1997; 97US-0066453P.
PR 24-NOV-1997; 97US-0066511P.
PR 24-NOV-1997; 97US-0066770P.
PR 11-DEC-1997; 97US-0069212P.
PR 11-DEC-1997; 97US-0069278P.
PR 11-DEC-1997; 97US-0069334P.
PR 16-DEC-1997; 97US-0069694P.
PR 23-JAN-1998; 98US-0072320P.
PR 04-FEB-1998; 98US-0073612P.
PR 09-FEB-1998; 98US-0074086P.
PR 09-FEB-1998; 98US-0074092P.
PR 12-MAR-1998; 98US-0077791P.
PR 20-MAR-1998; 98US-0078910P.
PR 25-MAR-1998; 98US-0079294P.
PR 27-MAR-1998; 98US-0079663P.
PR 27-MAR-1998; 98US-0079728P.
PR 31-MAR-1998; 98US-0080165P.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-352836/33.
DR N-PSDB; ACA67005.
XX
PT New isolated PRO polypeptide useful for treating diabetes, rheumatoid
PT arthritis, sports injuries, obesity, hearing loss in mammals, stroke, or
PT heart attack.
XX
PS Claim 12; Fig 24; 643pp; English.
XX
CC The present invention relates to the isolation of novel human PRO
CC polypeptides, and the polynucleotide sequences encoding them. The PRO
CC polypeptides are secreted and transmembrane proteins. The PRO
CC polypeptides and polynucleotides are useful for preparing a medicament
CC useful in the treatment of diabetes, bone and/or cartilage disorders
CC (e.g. rheumatoid arthritis, sports injuries, osteoarthritis), obesity,
CC hyper- or hypo-insulinaemia, hearing loss, and coagulation disorders
CC (e.g. stroke, heart attack). Anti-PRO antibodies are useful in diagnostic
CC assays for PRO, by detecting its expression in specific cells, tissues or
CC serum, and for affinity purification of PRO from recombinant cell culture
CC or natural sources. ABU80870-ABU81144 represent the human PRO
CC polypeptides of the invention. Note: The sequence data for this patent
CC was obtained in electronic format directly from the USPTO web site at
CC seqdata.uspto.gov/psipsDIDEntry.html
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
Db 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
Db 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
Db 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
Db 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

```
Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285

RESULT 35
ABU66581
ID   ABU66581 standard; protein; 285 AA.
XX
AC   ABU66581;
XX
DT   23-MAY-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO polypeptide; secreted and transmembrane protein;
KW   tumour necrosis factor-alpha; TNF-alpha; blood; proliferation;
KW   differentiation; chondrocyte; tumour; genetic disorder; cytostatic.
XX
OS   Homo sapiens.
XX
PN   US2003036180-A1.
XX
PD   20-FEB-2003.
XX
PF   09-MAY-2002; 2002US-00143114.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   01-JUN-2001; 2001US-00872035.
PR   01-JUN-2001; 2001WO-US017800.
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
PR   29-JUN-2001; 2001WO-US021066.
PR   09-JUL-2001; 2001WO-US021735.
PR   18-JUL-2001; 2001US-00908827.
PR   06-AUG-2001; 2001US-00924419.
PR   09-AUG-2001; 2001US-00927796.
PR   16-AUG-2001; 2001US-00931836.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-332040/31.
DR   N-PSDB; ACA03614.
XX
PT   New secreted and transmembrane PRO nucleic acids, useful for gene
PT   therapy, in chromosome and gene mapping, as chromosome markers, in tissue
PT   typing, and in chromosome identification.
XX
PS   Claim 12; Fig 24; 660pp; English.
XX
CC   The present invention relates to the isolation of novel human PRO
CC   polypeptides, and the polynucleotide sequences encoding them. The PRO
CC   polypeptides are secreted and transmembrane proteins. The PRO
```

```
CC   polypeptides are useful for detecting other PRO polypeptides, for linking
CC   bioactive molecules to cells expressing PRO polypeptides, for modulating
CC   biological activities of cells expressing PRO polypeptides, and for for
CC   identifying agonists or antagonists. The PRO polypeptides are useful for
CC   for stimulating the release of tumour necrosis factor (TNF)-alpha from
CC   human blood, for stimulating the proliferation or differentiation of
CC   chondrocytes, and detecting the presence of tumours. The polynucleotide
CC   sequences encoding PRO polypeptides are useful as hybridisation probes,
CC   in chromosome and gene mapping, in the generation of antisense RNA and
CC   DNA, in the preparation of PRO polypeptides, for generating transgenic
CC   animals or knockout animals, for the genetic analysis of individuals with
CC   genetic disorders, and in gene therapy. ABU66570-ABU66844 represent the
CC   human PRO polypeptides of the invention. Note: The sequence data for this
CC   patent was obtained in electronic format directly from the USPTO web site
CC   at seqdata.uspto.gov/psipsDIDEntry.html
XX
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 36
ABU59662
ID   ABU59662 standard; protein; 285 AA.
XX
AC   ABU59662;
XX
DT   13-MAY-2003  (first entry)
XX
DE   Novel secreted and transmembrane protein PRO738.
XX
KW   Human; PRO; hypertrophy of neonatal heart; angiogenesis; wound healing;
KW   cardiac insufficiency disorder; cancer; tumour; immune response;
KW   adrenal cortical capillary endothelial growth; c-fos induction;
KW   vascular endothelial growth factor inhibition; VEGF inhibition;
KW   endothelial cell growth inhibitor; T-lymphocytes stimulation;
KW   retinal neurons cell survival; rod photoreceptor cell survival;
KW   retinal disorder; retinitis pigmentosum; kidney disorder;
KW   mammalian kidney mesangial cell proliferation; Berger disease;
KW   dermatitis; herpetiformis; Crohn's disease; chondrocyte proliferation;
KW   chondrocyte redifferentiation; sports injury; arthritis.
XX
OS   Homo sapiens.
XX
PN   US2003017563-A1.
XX
PD   23-JAN-2003.
XX
PF   07-MAY-2002; 2002US-00140808.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
```

PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-148238/14.
DR N-PSDB; ABX89152.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; Fig 24; 659pp; English.
XX
CC The invention describes an isolated human PRO polypeptide. The PRO
CC polypeptides are useful in detecting PRO polypeptides in a sample, in
CC linking a bioactive molecule to a cell expressing a PRO polypeptide, and
CC in modulating at least one biological activity of a cell expressing a PRO
CC polypeptide. PRO1312 stimulates hypertrophy of neonatal heart and is thus
CC useful for treating cardiac insufficiency disorders. PRO1154 and PRO1186
CC stimulate adrenal cortical capillary endothelial growth, and PRO536,
CC PRO943, PRO828, PRO826, PRO1068 or PRO535, PRO826, PRO819, PRO1126,
CC PRO1360 and PRO1387 induce c-fos in endothelial cells, and are thus
CC useful for treating conditions or disorders where angiogenesis would be
CC beneficial, e.g. wound healing and antagonist of this polypeptide are
CC useful for treating cancerous tumours. PRO812 inhibits vascular
CC endothelial growth factor (VEGF) stimulated proliferation of endothelial
CC cells and is thus useful for inhibiting endothelial cell growth in
CC mammals which would be beneficial in inhibiting tumour growth. PRO826,
CC PRO1068, PRO1184, PRO1346 and PRO1375 stimulate proliferation of
CC stimulated T-lymphocytes and are therapeutically useful for enhancing
CC immune response. PRO828, PRO826, PRO1068 or PRO1132 enhance survival of
CC retinal neurons cells (PRO1132 is also enhances survival/proliferation of
CC rod photoreceptor cells) and therefore are useful for treating retinal
CC disorders of injuries, e.g. retinitis pigmentosum, AMD. PRO819, PRO813
CC and PRO11066 induce proliferation of mammalian kidney mesangial cells,
CC and therefore are useful for treating kidney disorders associated with
CC decreased mesangial cell function such as Berger disease or other
CC nephropathies associated with dermatitis, herpetiformis or Crohn's
CC disease. PRO1310, PRO844, PRO1312, PRO1192 and PRO1387 induce the
CC proliferation and/or redifferentiation of chondrocytes in culture and are
CC thus useful for treating sports injuries, and arthritis. This is the
CC amino acid sequence of a novel human PRO protein
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 37
ADA49357
ID ADA49357 standard; protein; 285 AA.
XX
AC ADA49357;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human TALL-1 protein.
XX
KW human; TALL-1; antagonist; immunosuppressive; antirheumatic;
KW antiinflammatory; antiarthritic; dermatological; antidiabetic;
KW neuroprotective; antithyroid; antipyretic; nephrotropic; vasotropic;
KW vaccine; autoimmune disease; rheumatoid arthriti;
KW systemic lupus erythematosus; insulin dependent diabetes mellitus;
KW multiple sclerosis; myasthaenia gravis; Grave's disease;
KW autoimmune hemolytic anaemia; autoimmune thrombocytopenic purpura;
KW Goodpasture's syndrome; pemphigus vulgaris; acute rheumatic fever;
KW post-streptococcal glomerulonephritis; polyarteritis nodosa.
XX
OS Homo sapiens.
XX
PN WO2003035846-A2.
XX
PD 01-MAY-2003.
XX
PF 24-OCT-2002; 2002WO-US034376.
XX
PR 24-OCT-2001; 2001US-0345106P.
PR 14-JAN-2002; 2002US-0348962P.
PR 07-FEB-2002; 2002US-0354966P.
PR 13-AUG-2002; 2002US-0403364P.
XX
PA (NAJE-) NAT JEWISH MEDICAL & RES CENT.
XX
PI Zhang G, Shu H, Liu Y, Xu L;
XX
DR WPI; 2003-403345/38.
DR N-PSDB; ADA49356.
XX
PT Novel TALL-1 antagonist protein useful for inhibiting TALL- 1 biological
PT activity in mammal, has a modification in the region connecting beta
PT strands D and E that reduces the biological activity of TALL-1
PT antagonist.
XX
PS Claim 1; Page 608-609; 618pp; English.
XX
CC The invention relates to a novel TALL-1 antagonist protein, comprising a

```
CC   sequence that differs from SEQ ID NO:2, or amino acids 134-285 of SEQ ID
CC   NO:2, by at least one modification in the region connecting &bgr; strands
CC   D and E that reduces the biological activity of the TALL- 1 antagonist as
CC   compared to wild-type TALL-1. A protein of the invention has
CC   immunosuppressive, antirheumatic, antiinflammatory, antiarthritic,
CC   dermatological, antidiabetic, neuroprotective, antithyroid, antipyretic,
CC   nephrotropic, and vasotropic activity. A TALL-1 antagonist may be used in
CC   a vaccine. A protein of the invention is useful for inhibiting TALL-1
CC   biological activity in a mammal. TC is useful for treating autoimmune
CC   diseases, rheumatoid arthritis, systemic lupus erythematosus, insulin
CC   dependent diabetes mellitus, multiple sclerosis, myasthaenia gravis,
CC   Grave's disease, autoimmune hemolytic anaemia, autoimmune
CC   thrombocytopenic purpura, Goodpasture's syndrome, pemphigus vulgaris,
CC   acute rheumatic fever, post-streptococcal glomerulonephritis and
CC   polyarteritis nodosa. The present sequence represents human TALL-1.
XX
SQ   Sequence 285 AA;

  Query Match          100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 38
ABO24852
ID   ABO24852 standard; protein; 285 AA.
XX
AC   ABO24852;
XX
DT   05-SEP-2003  (first entry)
XX
DE   Human secreted/transmembrane protein (PRO) #12.
XX
KW   Human; PRO; secreted protein; transmembrane protein; tumour; cytostatic;
KW   gene therapy; tumour necrosis factor-alpha; TNF-alpha; blood;
KW   proteoglycan; cartilage; cytokine; peripheral blood mononuclear cell;
KW   PBMC; glucose uptake; FFA; skeletal muscle cell; adipocyte cell;
KW   chondrocyte cell proliferation; chondrocyte cell differentiation;
KW   pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell; A-peptide; factor VIIA.
XX
OS   Homo sapiens.
XX
PN   US2003036179-A1.
XX
PD   20-FEB-2003.
XX
PF   10-MAY-2002; 2002US-00142431.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
```

PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-466355/44.
DR N-PSDB; ACD41806.
XX
PT New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or
PT PRO4978, useful in molecular biology, chromosome and gene mapping, in
PT generating antisense RNA and DNA, and in gene therapy.
XX
PS Claim 12; Fig 24; 659pp; English.
XX
CC The invention relates to an isolated nucleic acid comprising at least 80%
CC sequence identity to a PRO (secreted and transmembrane protein) cDNA
CC comprising a nucleic acid (a) encoding a PRO polypeptide, or its
CC extracellular domain (with or without its associated signal peptide),
CC which comprises any of the 275 120-850 residue amino acid sequences,
CC given in the specification; (b) comprising any of the 275 300-3500
CC nucleotide sequences, given in the specification; or (c) comprising the
CC full-length coding sequence of the nucleotide sequences given in the
CC specification, or of the DNA deposited under any of the American Type
CC Culture Collection (ATCC) Accession Numbers listed in the specification.
CC Also included are a vector comprising the novel nucleic acid, a host cell
CC comprising the vector, producing a PRO polypeptide, the isolated PRO
CC polypeptides detailed above, a chimaeric molecule comprising the PRO
CC polypeptide of fused to a heterologous amino acid sequence, an anti-PRO
CC antibody, detecting a PRO polypeptide in a sample suspected of containing
CC the PRO polypeptide, linking a bioactive molecule to a cell expressing a
CC PRO polypeptide, modulating at least one biological activity of a cell
CC expressing a PRO polypeptide, stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, (or proteoglycans from
CC cartilage or cytokine from peripheral blood mononuclear cells (PBMC)),
CC modulating the uptake of glucose or FFA by skeletal muscle cells or
CC adipocyte cells, stimulating the proliferation or differentiation of
CC chondrocyte cells (or proliferation of or gene expression in pericyte
CC cells), stimulating the proliferation of inner ear utricular supporting
CC cells (or of T-lymphocyte cells, or of endothelial cells), inhibiting the
CC binding of A-peptide to factor VIIA, or differentiation of adipocyte
CC cells, detecting the presence of a tumour in a mammal and an
CC oligonucleotide probe derived from any of the nucleotide sequences given
CC in the specification. The polynucleotide is useful in molecular biology,
CC including uses as hybridisation probes, in chromosome and gene mapping,
CC in generating antisense RNA and DNA, and in gene therapy. The
CC polynucleotide may also be used in preparing PRO polypeptides by
CC recombinant techniques, and in generating either transgenic animals or
CC knock-out animals which, in turn, are useful in the development and
CC screening of therapeutically useful reagents. The PRO polypeptide or the
CC antibody is used in preparing a medicament for treating a condition
CC responsive to the polypeptide or antibody, such as tumours, and in
CC various diagnostic assays. The present sequence rperesents a PRO
CC polypeptide
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 39
ABR42318
ID ABR42318 standard; protein; 285 AA.
XX
AC ABR42318;
XX
DT 11-AUG-2003 (first entry)
XX
DE Human BLyS (neutrokine-alpha).
XX
KW Human; BLyS; neutrokine-alpha; tumour necrosis factor; ligand;
KW cytostatic; immunomodulator; osteopathic.
XX
OS Homo sapiens.
XX

FH	Key	Location/Qualifiers
FT	Domain	1. .46
FT		/note= "predicted intracellular domain"
FT	Domain	31. .44
FT		/note= "conserved domain CD-I"
FT	Domain	47. .72
FT		/note= "predicted transmembrane domain"
FT	Domain	73. .285
FT		/note= "predicted extracellular domain"
FT	Domain	73. .83
FT		/note= "conserved domain CD-II"
FT	Domain	94. .102
FT		/note= "conserved domain CD-III"
FT	Modified-site	124. .127
FT		/note= "potential N-glycosylation site"
FT	Domain	148. .162
FT		/note= "conserved domain CD-IV"
FT	Domain	166. .181
FT		/note= "conserved domain CD-V"
FT	Domain	185. .209
FT		/note= "conserved domain CD-VI"
FT	Domain	210. .221
FT		/note= "conserved domain CD-VII"
FT	Domain	226. .237
FT		/note= "conserved domain CD-VIII"
FT	Modified-site	242. .245

```
FT                   /note= "potential N-glycosylation site"
FT   Domain          244. .249
FT                   /note= "conserved domain CD-IX"
FT   Domain          253. .265
FT                   /note= "conserved domain CD-X"
FT   Domain          277. .284
FT                   /note= "conserved domain CD-XI"
XX
PN   WO2003040307-A2.
XX
PD   15-MAY-2003.
XX
PF   25-JUL-2002; 2002WO-US023782.
XX
PR   27-JUL-2001; 2001US-0307838P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Hilbert DH,  Rosen CA;
XX
DR   WPI; 2003-430659/40.
DR   N-PSDB; ACC57904.
XX
PT   New heteromultimeric complex having a first polypeptide member of the
PT   tumor necrosis factor (TNF) ligand family, and a second different member
PT   of TNF ligand family, useful for treating cancer, osteoporosis or an
PT   autoimmune disease.
XX
PS   Disclosure; Fig 1A-B; 388pp; English.
XX
CC   The present sequence is the protein sequence of human BLyS (neutrokine-
CC   alpha). The invention relates to compositions comprising heterotrimeric
CC   complexes of tumour necrosis factor (TNF) ligand family members, and
CC   their use in the detection, prevention and treatment of disease. In one
CC   embodiment, the heterotrimeric complex comprises full-length or
CC   extracellular portions of BLyS and full-length or extracellular portions
CC   of other TNF ligand family members, preferably BLyS-SV. The
CC   heterotrimeric complexes of the invention are useful for treating an
CC   autoimmune disease, cancer or osteoporosis, and particularly for
CC   inhibiting cancer cell proliferation, increasing B cell proliferation, or
CC   inducing apoptosis of T cells. A claimed method of increasing B cell
CC   proliferation or activity comprises administering to an individual having
CC   an immunodeficiency a heterotrimeric complex including BLyS and APRIL. A
CC   claimed method of treating an autoimmune disease comprises administering
CC   an antibody that binds a complex of BlyS and APRIL
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

```
RESULT 40
ABP60543
ID   ABP60543 standard; protein; 285 AA.
XX
AC   ABP60543;
XX
DT   28-MAR-2003  (first entry)
XX
DE   Human tumour necrosis factor BlyS.
XX
KW   APRIL; scFv; immunospecific; tumour necrosis factor delta; TNF-delta;
KW   dermatological; immunosuppressive; antiinflammatory; antirheumatic;
KW   antiarthritic; cytostatic; antianaemic; antiallergic; antiasthmatic;
KW   neuroprotective; ophthalmological; tuberculostatic; antidiabetic;
KW   antipsoriatic; anti-HIV; antiarteriosclerotic; vasotropic; thyromimetic;
KW   haemostatic; cancer; autoimmune disease; graft versus host disease; GVHD;
KW   inflammatory disorder; proliferative disorder; single chain antibody;
KW   antibody; human; BlyS; tumour necrosis factor.
XX
OS   Homo sapiens.
XX
PN   WO200294192-A2.
XX
PD   28-NOV-2002.
XX
PF   22-MAY-2002; 2002WO-US016106.
XX
PR   24-MAY-2001; 2001US-0293100P.
XX
PA   (HUMA-) HUMAN GENOME SCI INC.
XX
PI   Ruben SM;
XX
DR   WPI; 2003-156740/15.
XX
PT   Novel isolated antibody that immunospecifically binds tumor necrosis
PT   factor delta, useful for treating, preventing or ameliorating Non-
PT   Hodgkin's lymphoma, multiple myeloma, rheumatoid arthritis or Sjogren's
PT   syndrome.
XX
PS   Disclosure; Page 213-214; 225pp; English.
XX
CC   The invention relates to a novel antibody or its fragment, which
CC   immunospecifically binds tumour necrosis factor Delta (TNF-delta/APRIL).
CC   The antibody of the invention has dermatological, immunosuppressive,
CC   antiinflammatory, antirheumic, antiarthritic, cytostatic, antianaemic,
CC   antiallergic, antiasthmatic, neuroprotective, ophthalmological,
CC   tuberculostatic, antidiabetic, antipsoriatic, anti-HIV,
CC   antiarteriosclerotic, vasotropic, thyromimetic, and haemostatic activity.
CC   The antibody or its fragment are useful for treating, preventing or
CC   ameliorating cancer such as Non-Hodgkin's lymphoma or multiple myeloma in
CC   human, disease or disorder such as autoimmune disease, and graft versus
CC   host disease (GVHD). The autoimmune disease is systemic lupus
CC   erythematosus, rheumatoid arthritis or Sjogren's syndrome. The antibody
CC   is useful for detecting, diagnosing, prognosing, treating, preventing or
CC   ameliorating a disease or disorder associated with aberrant APRIL or
CC   APRIL receptor expression or aberrant function of APRIL or APRIL
CC   receptor. The disease or disorders includes autoimmune and inflammatory
CC   disorders such as autoimmune neutropenia, haemolytic anaemia, dermatitis,
CC   asthma, allergic encephalomyelitis, myocarditis, multiple sclerosis,
CC   uveitis, tuberculosis, diabetes mellitus, psoriasis, cancer of the immune
CC   system, particularly B cell cancers, immune disorders such as myasthenia
CC   gravis, Hashimoto's disease, immunodeficiency syndrome, Bruton's disease,
CC   infectious diseases (e.g. acquired immunodeficiency syndrome (AIDS)), and
CC   proliferative disorders (e.g. leukemia). The present sequence represents
CC   the tumour necrosis factor BlyS
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;
```

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 41
ABP97718
ID ABP97718 standard; protein; 285 AA.
XX
AC ABP97718;
XX
DT 28-MAY-2003 (first entry)
XX
DE Amino acid sequence of human TALL-1 polypeptide.
XX
KW Human; TACI; BR3; receptor; tumour necrosis factor ligand; TNF ligand;
KW TALL-1; April; systemic lupus erythematosus.
XX
OS Homo sapiens.
XX
PN WO2003014294-A2.
XX
PD 20-FEB-2003.
XX
PF 24-JUL-2002; 2002WO-US023487.
XX
PR 03-AUG-2001; 2001US-0310114P.
PR 30-APR-2002; 2002US-0377171P.
XX
PA (GETH) GENENTECH INC.
XX
PI Dixit V, Grewal I, Ridgway J, Yan M;
XX
DR WPI; 2003-256560/25.
DR N-PSDB; ABZ68872.
XX
PT New nucleic acid encoding a TACIs or BR3 polypeptide, useful for
PT preparing a composition for treating systemic lupus erythematosus.
XX
PS Example 1; Fig 3; 153pp; English.
XX
CC The present sequence represents a human TALL-1 polypeptide. The
CC specification describes TACI and BR3 polypeptides. TACI and BR3 are
CC receptors. Tumour necrosis factor (TNF) family ligands TALL-1 and April
CC bind to the TACI receptor, while TNF family ligands TALL-1 also binds to
CC BR3 receptor. The TACI and BR3 receptor nucleic acid is useful for
CC preparing a composition for treating systemic lupus erythematosus
XX
SQ Sequence 285 AA;

  Query Match   100.0%; Score 1451; DB 6; Length 285;
  Best Local Similarity 100.0%; Pred. No. 1.3e-144;
  Matches 285; Conservative   0; Mismatches   0; Indels   0; Gaps   0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 42
ABU66857
ID ABU66857 standard; protein; 285 AA.
XX
AC ABU66857;
XX
DT 27-MAY-2003 (first entry)
XX
DE Human secreted/transmembrane, PRO, protein SEQ ID 24.
XX
KW Human; secreted protein; transmembrane protein; PRO;
KW inflammatory disease; organ failure; atherosclerosis; cardiac injury;
KW infertility; birth defects; premature aging; AIDS; biosensor;
KW acquired immunodeficiency syndrome; cancer; diabetic complication;
KW bioreactor; tumour.
XX
OS Homo sapiens.
XX
PN US2003032155-A1.
XX
PD 13-FEB-2003.
XX
PF 03-MAY-2002; 2002US-00137865.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.

PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-331925/31.
DR N-PSDB; ACA04035.
XX
PT New secreted and transmembrane nucleic acids and polypeptides, designated
PT as PRO, useful for treating inflammation, organ failure, atherosclerosis,
PT cardiac injury, infertility, birth defects, premature aging, AIDS, or
PT cancer.
XX
PS Claim 12; Fig 24; 659pp; English.
XX
CC The invention relates to an isolated nucleic acid comprising, or which is
CC at least 80% identical to, or the full-length coding sequence of, any of
CC the 275 nucleotide sequences, encoding the corresponding PRO polypeptide
CC (one of 275 secreted or transmembrane proteins). The nucleic acid further
CC comprises the full-length coding sequence of the DNA deposited under
CC American Type Culture Collection (ATCC) accession number in a list given
CC in the specification. Also included are vectors and host cells for
CC producing PRO proteins, PRO fusion proteins, anti-PRO antibodies, PRO
CC extracellular domains and mature sequences, methods of detecting PRO
CC proteins, methods for stimulating the release of TNF-alpha (tumour
CC necrosis factor alpha) from human blood, (and the proliferation of
CC differentiation of chondrocyte cells, the proliferation of, or gene
CC expression in pericyte cells, the release or proteoglycans from
CC cartilage, proliferation of inner ear urticular supporting cells, the
CC proliferation of T-lymphocyte cells, the release of a cytokine from
CC peripheral blood mononuclear cells (PBMC), or the proliferation of
CC endothelial cells), a method for modulating the uptake of glucose or free
CC fatty acid (FFA) by skeletal muscle cells, a method for inhibiting the
CC binding of A-peptide to factor VIIA, or the differentiation of adipocyte
CC cells, a method for detecting the presence of a tumour in a mammal and an
CC oligonucleotide probe derived from any of the nucleotide sequences cited
CC above. The nucleic acids and polypeptides are useful for treating
CC inflammatory diseases, organ failure, atherosclerosis, cardiac injury,
CC infertility, birth defects, premature aging, AIDS (acquired
CC immunodeficiency syndrome), cancer, or diabetic complications. The
CC nucleic acids are useful as hybridisation probes, in chromosome and gene
CC mapping, and in generating antisense RNA or DNA. The polypeptides are
CC useful as pharmaceuticals, diagnostics, biosensors or bioreactors. Both
CC are useful in tissue typing. The present sequence represents a PRO
CC protein of the invention
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 43
ABP57103
ID ABP57103 standard; protein; 285 AA.

XX
AC ABP57103;
XX
DT 16-APR-2003 (first entry)
XX
DE Membrane bound BLyS protein sequence.
XX
KW Membrane bound BLyS; BLyS; human; B lymphocyte stimulator; TNF;
KW tumour necrosis factor; cardiac transplant rejection; immunosuppressive;
KW graft rejection; BLyS inhibitor.
XX
OS Homo sapiens.
XX
PN WO2003001877-A2.
XX
PD 09-JAN-2003.
XX
PF 26-JUN-2002; 2002WO-US019971.
XX
PR 26-JUN-2001; 2001US-0300617P.
XX
PA (GENE-) GENE LOGIC INC.
XX
PI Bednarik DP, Margulies KB;
XX
DR WPI; 2003-201447/19.
XX
PT Diagnosing rejection in cardiac transplant patient or predicting
PT likelihood that cardiac transplant patient will experience rejection of
PT transplanted cardiac tissue, by assaying BLyS expression level in patient
PT sample.
XX
PS Disclosure; Page 4; 21pp; English.
XX
CC The present invention describes a method (M1) for diagnosing rejection in
CC a cardiac transplant patient or predicting the likelihood that a cardiac
CC transplant patient will experience rejection of the transplanted cardiac
CC tissue. (M1) comprises assaying the level of expression of BLyS (B
CC lymphocyte stimulator, which is a member of tumour necrosis factor (TNF)
CC superfamily of proteins) in a sample obtained from the patient. Also
CC described is a method (M2) for inhibiting cardiac transplant rejection
CC involving administering to a patient suffering from the rejection a
CC composition that inhibits BLyS activity. A BLyS inhibitor has
CC immunosuppressive activity. BLyS can be used for diagnosing rejection in
CC a cardiac transplant patient or predicting the likelihood that a cardiac
CC transplant patient will experience rejection of the transplanted cardiac
CC tissue. (M2) is useful for inhibiting cardiac transplant rejection.
CC Assays of BLyS levels allows an early indication of graft rejection prior
CC to the clinical observation of rejection, and permits early intervention
CC to block rejection. The present sequence represents the membrane bound
CC BLyS protein sequence, which is given in the exemplification of the
CC present invention
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 44
ADA45543
ID ADA45543 standard; protein; 285 AA.
XX
AC ADA45543;
XX
DT 20-NOV-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003022328-A1.
XX
PD 30-JAN-2003.
XX
PF 16-APR-2002; 2002US-00123904.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.

PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-584997/55.
DR N-PSDB; ADA45542.
XX
PT Novel secreted and transmembrane polypeptide for modulating biological
PT activity of cell expressing the polypeptide, identifying agonists or
PT antagonists of polypeptide, and as molecular weight markers.
XX
PS Claim 12; Fig 24; 659pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 45
ADA75974
ID ADA75974 standard; protein; 285 AA.
XX
AC ADA75974;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;

KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003073212-A1.
XX
PD 17-APR-2003.
XX
PF 16-APR-2002; 2002US-00123903.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-687639/65.
DR N-PSDB; ADA75973.
XX
PT New isolated nucleic acid encoding a secreted and transmembrane
PT polypeptide, designated e.g. PRO1114 or PRO4978, useful in chromosome and
PT gene mapping, in generating antisense RNA and DNA, and in gene therapy.
XX
PS Claim 12; Fig 24; 659pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a

CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 46
ADA18624
ID ADA18624 standard; protein; 285 AA.
XX
AC ADA18624;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; blood; chondrocyte cell; lung;
KW colon; breast; prostate; rectum; cervix; liver; tumour; cancer;
KW glucose uptake; FFA; adipocyte cell; pericyte cell; proteoglycan;
KW cartilage; inner ear utricular supporting cell; cytokine; A-peptide;
KW factor VIIA; endothelial cell.
XX
OS Homo sapiens.
XX
PN US2003054517-A1.
XX
PD 20-MAR-2003.
XX
PF 08-MAY-2002; 2002US-00141755.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.

```
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   01-JUN-2001; 2001US-00872035.
PR   01-JUN-2001; 2001WO-US017800.
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
PR   29-JUN-2001; 2001WO-US021066.
PR   09-JUL-2001; 2001WO-US021735.
PR   18-JUL-2001; 2001US-00908827.
PR   06-AUG-2001; 2001US-00924419.
PR   09-AUG-2001; 2001US-00927796.
PR   16-AUG-2001; 2001US-00931836.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI   Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI   Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR   WPI; 2003-521854/49.
DR   N-PSDB; ADA18623.
XX
PT   New PRO nucleic acid, useful for preparing a composition for treating
PT   e.g., tumors.
XX
PS   Claim 12; Fig 24; 660pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. lung, colon, breast,
CC   prostate, rectal, cervical and liver tumours). The polynucleotides are
CC   useful in molecular biology, including uses as hybridisation probes, in
CC   chromosome and gene mapping, in generating antisense RNA and DNA and in
CC   gene therapy. The polynucleotides may also be used in preparing PRO
CC   polypeptides by recombinant techniques and in generating either
CC   transgenic animals or knock-out animals which are useful in the
CC   development and screening of therapeutically useful reagents. The PRO
CC   polypeptides or antibodies are used in preparing a medicament for
CC   treating a condition responsive to the polypeptides or antibodies, such
CC   as tumours, for modulating the uptake of glucose or FFA by adipocyte
CC   cells, for stimulating the proliferation of or gene expression in
CC   pericyte cells, for stimulating the release of proteoglycans from
CC   cartilage, for stimulating the proliferation of inner ear utricular
CC   supporting cells, for stimulating the release of cytokines from PBMC
CC   cells, for inhibiting the binding of A-peptide to factor VIIA, for
CC   inhibiting the differentiation of adipocyte cells and for stimulating the
CC   proliferation of endothelial cells. This sequence represents a human PRO
CC   polypeptide of the invention. Note: The sequence data for this patent is
CC   also available in electronic format from USPTO at
CC   seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 47
ADA61247
ID   ADA61247 standard; protein; 285 AA.
XX
AC   ADA61247;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Homo sapiens.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inihibitor; cytokine release stimulator; tumour;
KW   lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Novel.
OS   human.
OS   secreted.
OS   and.
OS   transmembrane.
OS   protein.
OS   PRO738.
XX
PN   US2003049816-A1.
XX
PD   13-MAR-2003.
XX
PF   15-APR-2002; 2002US-00123262.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
```

PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-695892/66.
DR N-PSDB; ADA61246.
XX
PT New PRO nucleic acid and encode polypeptides, are useful for
PT manufacturing a medicament for diagnosing or treating cancer.
XX
PS Claim 12; Fig 24; 660pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
Db 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
Db 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
Db 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
Db 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

```
Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 48
ADB19032
ID ADB19032 standard; protein; 285 AA.
XX
AC ADB19032;
XX
DT 20-NOV-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine releas.
XX
OS Homo sapiens.
XX
PN US2003068796-A1.
XX
PD 10-APR-2003.
XX
PF 15-APR-2002; 2002US-00123261.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-695927/66.
DR N-PSDB; ADB19031.
XX
PT Novel secreted and transmembrane PRO polypeptides useful for stimulating
PT the release of tumor necrosis factor alpha and detecting the presence of
PT a tumor in a mammal.
XX
PS Claim 12; Fig 24; 660pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and

```
CC   transmembrane) polypeptides (I). (I) is useful for stimulating the
CC   release of TNF-alpha from human blood, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyt
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 49
ADB27573
ID   ADB27573 standard; protein; 285 AA.
XX
AC   ADB27573;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003082704-A1.
XX
PD   01-MAY-2003.
XX
PF   24-APR-2002; 2002US-00131819.
XX
PR   09-DEC-1999;   99US-0170262P.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-765415/72.
DR   N-PSDB; ADB27572.
XX
PT   New PRO nucleic acid, useful for preparing a composition for treating
PT   e.g., tumor or for tissue typing.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   the USPTO website at seqdata.uspto.gov.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 50
ADA86052
ID   ADA86052 standard; protein; 285 AA.
XX
AC   ADA86052;
XX
DT   20-NOV-2003  (first entry)
```

XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003082711-A1.
XX
PD 01-MAY-2003.
XX
PF 16-MAY-2002; 2002US-00147508.
XX
PR 02-JUL-1998; 98US-0091519P.
PR 02-JUN-1999; 99WO-US012252.
PR 07-JUL-1999; 99US-0143048P.
PR 25-AUG-1999; 99US-00380137.
PR 30-MAR-2000; 2000WO-US008439.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786914/74.
DR N-PSDB; ADA86051.
XX
PT New PRO nucleic acid, useful for preparing a composition for treating
PT e.g., tumor or for tissue typing.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 51
ADB15616
ID ADB15616 standard; protein; 285 AA.
XX
AC ADB15616;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003087350-A1.
XX
PD 08-MAY-2003.
XX
PF 22-APR-2002; 2002US-00127821.
XX
PR 04-AUG-1998; 98US-0095301P.
PR 02-JUN-1999; 99WO-US012252.
PR 25-AUG-1999; 99US-00380137.
PR 30-MAR-2000; 2000WO-US008439.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786941/74.
DR N-PSDB; ADB15615.
XX
PT New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide,
PT and for manufacturing a medicament for diagnosing or treating tumor.

```
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 52
ADA47402
ID   ADA47402 standard; protein; 285 AA.
XX
AC   ADA47402;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003073215-A1.
XX
PD   17-APR-2003.
XX
PF   07-MAY-2002; 2002US-00140925.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
```

PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-644801/61.
DR N-PSDB; ADA47401.
XX
PT New secreted and transmembrane PRO polypeptides and nucleic acids, useful
PT in gene therapy, detecting the presence of tumor in a mammal, or
PT modulating the uptake of glucose or free fatty acid by skeletal muscle
PT cells or adipocyte cells.
XX
PS Claim 12; Fig 24; 659pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 53
ADA67197
ID ADA67197 standard; protein; 285 AA.
XX
AC ADA67197;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.

XX
PN US2003068795-A1.
XX
PD 10-APR-2003.
XX
PF 15-APR-2002; 2002US-00123236.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-695926/66.
DR N-PSDB; ADA67196.
XX
PT Novel isolated PRO secreted and transmembrane polypeptides useful for
PT stimulating the release of tumor necrosis factor-alpha from human blood
PT and detecting the presence of a tumor in a mammal.
XX
PS Claim 12; Fig 24; 660pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and

```
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match            100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 54
ADB30204
ID   ADB30204 standard; protein; 285 AA.
XX
AC   ADB30204;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003068794-A1.
XX
PD   10-APR-2003.
XX
PF   15-APR-2002; 2002US-00123155.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
```

PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-708391/67.
DR N-PSDB; ADB30203.
XX
PT New isolated PRO polypeptides e.g. PRO1801 and PRO1114, useful in the
PT preparation of a medicament for treating a condition responsive to PRO
PT polypeptide, and as therapeutic agents e.g. vaccines.
XX
PS Claim 12; Fig 24; 660pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;

Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 55
ADA85500
ID ADA85500 standard; protein; 285 AA.
XX
AC ADA85500;
XX
DT 20-NOV-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003082693-A1.
XX
PD 01-MAY-2003.
XX
PF 22-APR-2002; 2002US-00127843.
XX
PR 05-JUN-2000; 2000US-0209832P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786907/74.
DR N-PSDB; ADA85499.
XX
PT New PRO nucleic acid, useful for preparing a composition for treating
PT e.g., tumor or for tissue typing.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,

```
CC   for stimulating the proliferation of or gene expression in pericyte
CC   cells, for stimulating the release of proteoglycans from cartilage, for
CC   stimulating the proliferation of inner ear utricular supporting cells,
CC   for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC   the release of a cytokine from PBMC cells, for inhibiting the binding of
CC   A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC   cells, for stimulating proliferation of endothelial cells, for detecting
CC   the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC   prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC   are useful for isolating genomic and cDNA nucleotide sequences or
CC   antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC   in assays to identify other proteins or molecules involved in binding
CC   interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC   and gene mapping, in generation of antisense RNA and DNA, in the
CC   preparation of PRO polypeptide, for generating transgenic animals or
CC   knockout animals which in turn are useful in the development and
CC   screening of therapeutically useful reagents, in gene therapy, for
CC   chromosome identification, as chromosome marker, and for generating
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 56
ADA96712
ID   ADA96712 standard; protein; 285 AA.
XX
AC   ADA96712;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003082705-A1.
XX
PD   01-MAY-2003.
XX
PF   24-APR-2002; 2002US-00131829.
XX
PR   09-DEC-1999;   99US-0170262P.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-755112/71.
DR   N-PSDB; ADA96711.
XX
PT   New PRO nucleic acid, useful for preparing a composition for treating
PT   e.g., tumor or for tissue typing.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
```

```
Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 57
ADA79016
ID   ADA79016 standard; protein; 285 AA.
XX
AC   ADA79016;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003082763-A1.
XX
PD   01-MAY-2003.
XX
PF   17-APR-2002; 2002US-00124818.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   01-JUN-2001; 2001US-00872035.
PR   01-JUN-2001; 2001WO-US017800.
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
PR   29-JUN-2001; 2001WO-US021066.
PR   09-JUL-2001; 2001WO-US021735.
PR   18-JUL-2001; 2001US-00908827.
PR   06-AUG-2001; 2001US-00924419.
PR   09-AUG-2001; 2001US-00927796.
PR   16-AUG-2001; 2001US-00931836.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
```

PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-755116/71.
DR N-PSDB; ADA79015.
XX
PT New secreted and transmembrane PRO polypeptides and nucleic acids, useful
PT in detection and treatment of cancer and in modulating the uptake of
PT glucose or free fatty acid by skeletal muscle cells or adipocyte cells.
XX
PS Claim 12; Fig 24; 659pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 58
ADA87155
ID ADA87155 standard; protein; 285 AA.
XX
AC ADA87155;
XX
DT 20-NOV-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003087345-A1.
XX
PD 08-MAY-2003.
XX
PF 16-APR-2002; 2002US-00123907.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 10-MAR-1999; 2000WO-US006319.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.

PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786937/74.
DR N-PSDB; ADA87154.
XX
PT New PRO nucleic acid, useful for manufacturing a medicament for
PT diagnosing or treating tumor.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 59
ADB16357
ID ADB16357 standard; protein; 285 AA.
XX
AC ADB16357;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX

OS Homo sapiens.
XX
PN US2003087349-A1.
XX
PD 08-MAY-2003.
XX
PF 19-APR-2002; 2002US-00125928.
XX
PR 19-JUN-1998; 98US-0089947P.
PR 02-JUN-1999; 99WO-US012252.
PR 25-AUG-1999; 99US-00380137.
PR 02-MAR-2000; 2000WO-US005841.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786940/74.
DR N-PSDB; ADB16356.
XX
PT New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide,
PT and for manufacturing a medicament for diagnosing or treating tumor.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 60
ADA91449
ID ADA91449 standard; protein; 285 AA.
XX
AC ADA91449;
XX
DT 20-NOV-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003082694-A1.
XX
PD 01-MAY-2003.
XX
PF 22-APR-2002; 2002US-00127845.
XX
PR 03-MAR-2000; 2000US-0187202P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786908/74.
DR N-PSDB; ADA91448.
XX
PT New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide,
PT or a composition for treating e.g., tumor or for tissue typing.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte

```
CC   cells, for stimulating proliferation of endothelial cells, for detecting
CC   the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC   prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC   are useful for isolating genomic and cDNA nucleotide sequences or
CC   antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC   in assays to identify other proteins or molecules involved in binding
CC   interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC   and gene mapping, in generation of antisense RNA and DNA, in the
CC   preparation of PRO polypeptide, for generating transgenic animals or
CC   knockout animals which in turn are useful in the development and
CC   screening of therapeutically useful reagents, in gene therapy, for
CC   chromosome identification, as chromosome marker, and for generating
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 61
ADB14512
ID   ADB14512 standard; protein; 285 AA.
XX
AC   ADB14512;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003087351-A1.
XX
PD   08-MAY-2003.
XX
PF   22-APR-2002; 2002US-00127822.
XX
PR   17-JUN-1998;   98US-0089532P.
PR   02-JUN-1999;   99WO-US012252.
PR   25-AUG-1999;   99US-00380137.
PR   30-NOV-1999;   99WO-US028313.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-786942/74.
DR   N-PSDB; ADB14511.
XX
PT   New PRO nucleic acid, useful for manufacturing a medicament for
PT   diagnosing or treating tumor.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
```

```
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 62
ADB18473
ID   ADB18473 standard; protein; 285 AA.
XX
AC   ADB18473;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inihibitor; cytokine releas.
XX
OS   Homo sapiens.
XX
PN   US2003073211-A1.
XX
PD   17-APR-2003.
XX
PF   15-APR-2002; 2002US-00123292.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   01-JUN-2001; 2001US-00872035.
PR   01-JUN-2001; 2001WO-US017800.
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
PR   29-JUN-2001; 2001WO-US021066.
PR   09-JUL-2001; 2001WO-US021735.
PR   18-JUL-2001; 2001US-00908827.
PR   06-AUG-2001; 2001US-00924419.
PR   09-AUG-2001; 2001US-00927796.
PR   16-AUG-2001; 2001US-00931836.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-695954/66.
DR   N-PSDB; ADB18472.
XX
PT   New isolated nucleic acid and encoded PRO polypeptide, are useful in the
PT   diagnosis and treatment of cancer.
```

XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyt
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
Db 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
Db 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
Db 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
Db 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy 241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
Db 241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285

RESULT 63
ADA93688
ID ADA93688 standard; protein; 285 AA.
XX
AC ADA93688;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003077722-A1.
XX
PD 24-APR-2003.
XX
PF 03-MAY-2002; 2002US-00137872.
XX
PR 03-MAR-2000; 2000US-0187202P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-755077/71.
DR N-PSDB; ADA93687.
XX
PT New isolated, secreted and transmembrane PRO nucleic acid, useful for the
PT diagnosis, prevention and/or treatment of tumors, such as lung, colon,
PT breast, prostate, rectal, cervical and/or liver tumors.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
Db 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
Db 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
Db 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
Db 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy 241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
Db 241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285

RESULT 64
ADB19584

ID ADB19584 standard; protein; 285 AA.
XX
AC ADB19584;
XX
DT 20-NOV-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003082691-A1.
XX
PD 01-MAY-2003.
XX
PF 22-APR-2002; 2002US-00127838.
XX
PR 17-NOV-1998; 98US-0108802P.
PR 01-SEP-1999; 99WO-US020111.
PR 18-OCT-1999; 99US-00403297.
PR 18-FEB-2000; 2000WO-US004342.
PR 02-JUN-2000; 2000WO-US015264.
PR 23-AUG-2000; 2000WO-US023522.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-755108/71.
DR N-PSDB; ADB19583.
XX
PT PRO nucleic acid, useful for preparing a composition for treating e.g.,
PT tumor or for tissue typing.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 65
ADB12896
ID ADB12896 standard; protein; 285 AA.
XX
AC ADB12896;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003082710-A1.
XX
PD 01-MAY-2003.
XX
PF 16-MAY-2002; 2002US-00147484.
XX
PR 09-DEC-1999; 99US-0170262P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786913/74.
DR N-PSDB; ADB12895.

```
XX
PT   New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide,
PT   preparing a composition for treating e.g., tumor, or for tissue typing.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 66
ABO43160
ID   ABO43160 standard; protein; 285 AA.
XX
AC   ABO43160;
XX
DT   26-SEP-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO; gene therapy;
KW   chromosome identification; tissue typing.
XX
OS   Homo sapiens.
XX
PN   US2003044945-A1.
XX
PD   06-MAR-2003.
XX
PF   10-MAY-2002; 2002US-00142419.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
```

```
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   01-JUN-2001; 2001US-00872035.
PR   01-JUN-2001; 2001WO-US017800.
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
PR   29-JUN-2001; 2001WO-US021066.
PR   09-JUL-2001; 2001WO-US021735.
PR   18-JUL-2001; 2001US-00908827.
PR   06-AUG-2001; 2001US-00924419.
PR   09-AUG-2001; 2001US-00927796.
PR   16-AUG-2001; 2001US-00931836.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI   Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI   Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR   WPI; 2003-492275/46.
DR   N-PSDB; ACD98435.
XX
PT   New transmembrane polypeptides and nucleic acids encoding the
PT   polypeptides, useful in gene therapy, in chromosome identification, as
PT   chromosome markers, or in generating probes.
XX
PS   Claim 12; Fig 24; 660pp; English.
XX
CC   The invention describes an isolated nucleic acid encoding a PRO (secreted
CC   and transmembrane) polypeptide. Nucleic acids which encode PRO can be
CC   used to generate either transgenic animals or knock-out animals useful in
CC   developing and screening of therapeutically useful reagents. The nucleic
CC   acids may also be used in gene therapy, in chromosome identification, as
CC   chromosome markers, or in generating probes. The PRO polypeptides are
CC   useful as molecular markers for protein electrophoresis, and the isolated
CC   nucleic acids may be used for recombinantly expressing those markers. The
CC   PRO polypeptides and nucleic acids may also be used in tissue typing.
CC   Anti-PRO antibodies are useful in diagnostic assays for PRO, and in
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. This is the amino acid sequence of a novel human secreted and
CC   transmembrane PRO polypeptide
XX
SQ   Sequence 285 AA;
```

```
  Query Match           100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

```
RESULT 67
ADA74150
ID   ADA74150 standard; protein; 285 AA.
XX
AC   ADA74150;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003068798-A1.
XX
PD   10-APR-2003.
XX
PF   07-MAY-2002; 2002US-00140928.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
```

PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-625490/59.
DR N-PSDB; ADA74149.
XX
PT Novel secreted and transmembrane PRO polypeptides and polynucleotides
PT encoding them, useful for treating bone disorders, arthritis, heart
PT attack, injuries, tumors, and stimulating release of Tumor Necrosis
PT Factor-alpha from human blood.
XX
PS Claim 12; Fig 24; 659pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
Db 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
Db 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

```
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
                 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
                 |||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 68
ADB24383
ID ADB24383 standard; protein; 285 AA.
XX
AC ADB24383;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide SEQ ID NO 24.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003077713-A1.
XX
PD 24-APR-2003.
XX
PF 22-APR-2002; 2002US-00127839.
XX
PR 05-JUN-2000; 2000US-0209832P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-755068/71.
DR N-PSDB; ADB24382.
XX
PT New isolated, secreted and transmembrane PRO polypeptides and nucleic
PT acids, useful for the diagnosis, prevention and/or treatment of tumors,
PT such as lung, colon, breast, prostate, rectal, cervical and/or liver
PT tumors.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

```
  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 69
ADA81907
ID ADA81907 standard; protein; 285 AA.
XX
AC ADA81907;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003082701-A1.

```
XX
PD   01-MAY-2003.
XX
PF   23-APR-2002; 2002US-00128686.
XX
PR   31-AUG-1998;   98US-0098525P.
PR   16-SEP-1998;   98US-0100634P.
PR   02-JUN-1999;   99WO-US012252.
PR   25-AUG-1999;   99US-00380137.
PR   30-MAR-2000; 2000WO-US008439.
PR   02-JUN-2000; 2000WO-US015264.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI   Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI   Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR   WPI; 2003-755110/71.
DR   N-PSDB; ADA81906.
XX
PT   PRO nucleic acid, useful for preparing a composition for treating e.g.,
PT   tumor or for tissue typing.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 70
ADA74870
ID   ADA74870 standard; protein; 285 AA.
XX
AC   ADA74870;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003073216-A1.
XX
PD   17-APR-2003.
XX
PF   30-MAY-2002; 2002US-00160498.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
```

PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-765392/72.
DR N-PSDB; ADA74869.
XX
PT New secreted and transmembrane PRO polypeptides useful for stimulating
PT the release of tumor necrosis factor alpha in human blood and detecting
PT the presence of tumor in a mammal.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
Db 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
Db 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
Db 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
Db 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy 241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
Db 241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285

```
RESULT 71
ADA84948
ID   ADA84948 standard; protein; 285 AA.
XX
AC   ADA84948;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inihibitor; cytokine release stimulator; tumour;
KW   lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003082695-A1.
XX
PD   01-MAY-2003.
XX
PF   22-APR-2002; 2002US-00127846.
XX
PR   03-MAR-2000; 2000US-0187202P.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-786909/74.
DR   N-PSDB; ADA84947.
XX
PT   New nucleic acid encoding a PRO polypeptide, useful for preparing a
PT   composition for treating e.g. tumor by gene therapy, or for tissue
PT   typing.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention describes 305 nucleic acids encoding PRO (secreted and
CC   transmembrane) polypeptides (I). (I) is useful for stimulating the
CC   release of TNF-alpha from human blood, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating the proliferation or differentiation of chondrocyte cells,
CC   for stimulating the proliferation of or gene expression in pericyte
CC   cells, for stimulating the release of proteoglycans from cartilage, for
CC   stimulating the proliferation of inner ear utricular supporting cells,
CC   for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC   the release of a cytokine from PBMC cells, for inhibiting the binding of
CC   A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC   cells, for stimulating proliferation of endothelial cells, for detecting
CC   the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC   prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC   are useful for isolating genomic and cDNA nucleotide sequences or
CC   antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC   in assays to identify other proteins or molecules involved in binding
CC   interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC   and gene mapping, in generation of antisense RNA and DNA, in the
CC   preparation of PRO polypeptide, for generating transgenic animals or
CC   knockout animals which in turn are useful in the development and
CC   screening of therapeutically useful reagents, in gene therapy, for
CC   chromosome identification, as chromosome marker, and for generating
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 72
ADA84396
ID   ADA84396 standard; protein; 285 AA.
XX
AC   ADA84396;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inihibitor; cytokine release stimulator; tumour;
KW   lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003082708-A1.
XX
PD   01-MAY-2003.
XX
PF   15-MAY-2002; 2002US-00146729.
XX
PR   05-JUN-2000; 2000US-0209832P.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-786911/74.
DR   N-PSDB; ADA84395.
XX
PT   New PRO nucleic acid, useful for preparing a composition for treating
```

```
PT   e.g. tumor or for tissue typing.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention describes 305 nucleic acids encoding PRO (secreted and
CC   transmembrane) polypeptides (I). (I) is useful for stimulating the
CC   release of TNF-alpha from human blood, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating the proliferation or differentiation of chondrocyte cells,
CC   for stimulating the proliferation of or gene expression in pericyte
CC   cells, for stimulating the release of proteoglycans from cartilage, for
CC   stimulating the proliferation of inner ear utricular supporting cells,
CC   for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC   the release of a cytokine from PBMC cells, for inhibiting the binding of
CC   A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC   cells, for stimulating proliferation of endothelial cells, for detecting
CC   the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC   prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC   are useful for isolating genomic and cDNA nucleotide sequences or
CC   antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC   in assays to identify other proteins or molecules involved in binding
CC   interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC   and gene mapping, in generation of antisense RNA and DNA, in the
CC   preparation of PRO polypeptide, for generating transgenic animals or
CC   knockout animals which in turn are useful in the development and
CC   screening of therapeutically useful reagents, in gene therapy, for
CC   chromosome identification, as chromosome marker, and for generating
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 73
ADB29652
ID   ADB29652 standard; protein; 285 AA.
XX
AC   ADB29652;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003073214-A1.
XX
PD   17-APR-2003.
XX
PF   17-APR-2002; 2002US-00124822.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
```

PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-720081/68.
DR N-PSDB; ADB29651.
XX
PT Novel secreted and transmembrane PRO polypeptides useful for stimulating
PT the release of tumor necrosis factor alpha and detecting the presence of
PT a tumor in a mammal.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 74
ADA80180
ID ADA80180 standard; protein; 285 AA.
XX
AC ADA80180;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003082761-A1.
XX
PD 01-MAY-2003.

XX
PF 12-APR-2002; 2002US-00121061.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-755115/71.
DR N-PSDB; ADA80179.
XX
PT New PRO polypeptides useful for treating diabetes, hyper- or hypo-
PT insulinemia, sports injuries, arthritis, obesity, stroke, heart attack,
PT various coagulation disorders and tumors.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-

```
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 75
ADA75422
ID   ADA75422 standard; protein; 285 AA.
XX
AC   ADA75422;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003082703-A1.
XX
PD   01-MAY-2003.
XX
PF   23-APR-2002; 2002US-00128691.
XX
PR   09-DEC-1999;   99US-0170262P.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zharg Z;
XX
DR   WPI; 2003-765414/72.
DR   N-PSDB; ADA75421.
XX
PT   New PRO nucleic acid, useful for preparing a composition for treating
PT   e.g., tumor or for tissue typing.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 76
ADA46647
ID   ADA46647 standard; protein; 285 AA.
XX
AC   ADA46647;
```

XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003073210-A1.
XX
PD 17-APR-2003.
XX
PF 11-APR-2002; 2002US-00121045.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-644800/61.
DR N-PSDB; ADA46646.
XX
PT New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or
PT PRO4978, useful in molecular biology, chromosome and gene mapping, in
PT generating antisense RNA and DNA, and in gene therapy.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,

CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 77
ADB24943
ID ADB24943 standard; protein; 285 AA.
XX
AC ADB24943;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide SEQ ID NO 24.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003077715-A1.
XX
PD 24-APR-2003.
XX
PF 23-APR-2002; 2002US-00128693.
XX
PR 31-AUG-1998; 98US-0098525P.
PR 16-SEP-1998; 98US-0100634P.
PR 02-JUN-1999; 99WO-US012252.
PR 25-AUG-1999; 99US-00380137.
PR 30-MAR-2000; 2000WO-US008439.
PR 02-JUN-2000; 2000WO-US015264.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-755070/71.
DR N-PSDB; ADB24942.
XX
PT New isolated, secreted and transmembrane PRO nucleic acids, useful for
PT the diagnosis, prevention and/or treatment of tumors, such as lung,
PT colon, breast, prostate, rectal, cervical and/or liver tumors.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 78
ADA93119
ID ADA93119 standard; protein; 285 AA.
XX
AC ADA93119;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003077721-A1.
XX
PD 24-APR-2003.
XX
PF 24-APR-2002; 2002US-00131837.
XX
PR 09-DEC-1999; 99US-0170262P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-755076/71.
DR N-PSDB; ADA93118.
XX
PT New PRO nucleic acid, useful for recombinantly producing a PRO
PT polypeptide and for manufacturing a medicament for diagnosing or treating
PT tumor.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

```
  Query Match           100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy       -121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 79
ADB26469
ID ADB26469 standard; protein; 285 AA.
XX
AC ADB26469;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;

KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003092147-A1.
XX
PD 15-MAY-2003.
XX
PF 11-APR-2002; 2002US-00121051.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-777249/73.
DR N-PSDB; ADB26468.
XX
PT Novel isolated PRO polypeptide useful for treating diabetes, hyper- or
PT hypo-insulinemia, sports injuries, arthritis, obesity, stroke, heart
PT attack, various coagulation disorders, tumors.
XX
PS Claim 12; Fig 24; 660pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation

CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 80
ADB30756
ID ADB30756 standard; protein; 285 AA.
XX
AC ADB30756;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003096386-A1.
XX
PD 22-MAY-2003.
XX
PF 11-APR-2002; 2002US-00121042.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.

PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786990/74.
DR N-PSDB; ADB30755.
XX
PT Novel isolated PRO polypeptide useful for treating diabetes, hyper- or
PT hypo-insulinemia, sports injuries, arthritis, obesity, stroke, heart
PT attack, various coagulation disorders, tumors.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
Db 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
Db 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
Db 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
Db 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy 241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
Db 241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285

RESULT 81
ADA60684
ID ADA60684 standard; protein; 285 AA.
XX
AC ADA60684;
XX
DT 20-NOV-2003 (first entry)
XX
DE Homo sapiens.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Novel.
OS human.
OS secreted.
OS and.
OS transmembrane.
OS protein.
OS PRO738.
XX
PN US2003049817-A1.
XX
PD 13-MAR-2003.
XX
PF 10-MAY-2002; 2002US-00142423.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.

PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
PR 10-MAR-2009; 2000WO-US006319.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-695893/66.
DR N-PSDB; ADA60683.
XX
PT New secreted and transmembrane PRO polypeptide and nucleic acid, useful
PT for manufacturing a medicament for diagnosing or treating tumor.
XX
PS Claim 12; Fig 24; 658pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
Db 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

```
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 82
ADB23831
ID   ADB23831 standard; protein; 285 AA.
XX
AC   ADB23831;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide SEQ ID NO 24.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003077714-A1.
XX
PD   24-APR-2003.
XX
PF   22-APR-2002; 2002US-00127901.
XX
PR   17-JUN-1998;   98US-0089599P.
PR   02-JUN-1999;   99WO-US012252.
PR   25-AUG-1999;   99US-00380137.
PR   30-NOV-1999;   99WO-US028313.
PR   30-MAR-2000; 2000WO-US008439.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-755069/71.
DR   N-PSDB; ADB23830.
XX
PT   New isolated, secreted and transmembrane PRO polypeptides and nucleic
PT   acids, useful for the diagnosis, prevention and/or treatment of tumors,
PT   such as lung, colon, breast, prostate, rectal, cervical and/or liver
PT   tumors.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 83
ADA96160
ID   ADA96160 standard; protein; 285 AA.
XX
AC   ADA96160;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
```

```
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003082690-A1.
XX
PD   01-MAY-2003.
XX
PF   22-APR-2002; 2002US-00127837.
XX
PR   01-SEP-1998;   98US-0098750P.
PR   01-SEP-1999;   99WO-US020111.
PR   18-OCT-1999;   99US-00403297.
PR   18-FEB-2000; 2000WO-US004342.
PR   08-NOV-2000; 2000WO-US030952.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-755107/71.
DR   N-PSDB; ADA96159.
XX
PT   PRO nucleic acid, useful for preparing a composition for treating e.g.,
PT   tumor or for tissue typing.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 84
ADA80732
ID   ADA80732 standard; protein; 285 AA.
XX
AC   ADA80732;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003082702-A1.
XX
PD   01-MAY-2003.
XX
PF   23-APR-2002; 2002US-00128690.
XX
PR   02-MAR-2000; 2000WO-US005841.
PR   30-MAY-2000; 2000WO-US014941.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-755111/71.
DR   N-PSDB; ADA80731.
XX
PT   New PRO nucleic acid, useful for preparing a composition for treating
PT   e.g., tumor or for tissue typing.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
```

CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 85
ADA95608
ID ADA95608 standard; protein; 285 AA.
XX
AC ADA95608;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003082759-A1.
XX
PD 01-MAY-2003.
XX
PF 11-APR-2002; 2002US-00121040.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.

PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-755114/71.
DR N-PSDB; ADA95607.
XX
PT New isolated PRO polypeptides, useful for treating diabetes, hyper- or
PT hypo-insulinemia, sports injuries, arthritis, obesity, stroke, heart
PT attack, various coagulation disorders and tumors.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 6; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 86
ADB25917
ID ADB25917 standard; protein; 285 AA.
XX
AC ADB25917;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003082760-A1.
XX
PD 01-MAY-2003.
XX
PF 12-APR-2002; 2002US-00121056.
XX

PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-777204/73.
DR N-PSDB; ADB25916.
XX
PT New secreted and transmembrane PRO polypeptides and nucleic acids, useful
PT in gene therapy, detecting the presence of tumor in a mammal, or
PT modulating the uptake of glucose or free fatty acid by skeletal muscle
PT cells or adipocyte cells.
XX
PS Claim 12; Fig 24; 659pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This

```
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   the USPTO website at seqdata.uspto.gov.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 87
ADB21402
ID   ADB21402 standard; protein; 285 AA.
XX
AC   ADB21402;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inihibitor; cytokine release stimulator; tumour;
KW   lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003082765-A1.
XX
PD   01-MAY-2003.
XX
PF   17-MAY-2002; 2002US-00147492.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   01-JUN-2001; 2001US-00872035.
PR   01-JUN-2001; 2001WO-US017800.
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
```

```
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
PR   29-JUN-2001; 2001WO-US021066.
PR   09-JUL-2001; 2001WO-US021735.
PR   18-JUL-2001; 2001US-00908827.
PR   06-AUG-2001; 2001US-00924419.
PR   09-AUG-2001; 2001US-00927796.
PR   16-AUG-2001; 2001US-00931836.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI   Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI   Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR   WPI; 2003-786920/74.
DR   N-PSDB; ADB21401.
XX
PT   New secreted and transmembrane PRO polypeptide useful for detecting the
PT   presence of tumor in a mammal, or modulating the uptake of glucose or
PT   free fatty acid by skeletal muscle cells or adipocyte cells.
XX
PS   Claim 12; Fig 24; 638pp; English.
XX
CC   The invention describes 305 nucleic acids encoding PRO (secreted and
CC   transmembrane) polypeptides (I). (I) is useful for stimulating the
CC   release of TNF-alpha from human blood, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating the proliferation or differentiation of chondrocyte cells,
CC   for stimulating the proliferation of or gene expression in pericyte
CC   cells, for stimulating the release of proteoglycans from cartilage, for
CC   stimulating the proliferation of inner ear utricular supporting cells,
CC   for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC   the release of a cytokine from PBMC cells, for inhibiting the binding of
CC   A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC   cells, for stimulating proliferation of endothelial cells, for detecting
CC   the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC   prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC   are useful for isolating genomic and cDNA nucleotide sequences or
CC   antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC   in assays to identify other proteins or molecules involved in binding
CC   interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC   and gene mapping, in generation of antisense RNA and DNA, in the
CC   preparation of PRO polypeptide, for generating transgenic animals or
CC   knockout animals which in turn are useful in the development and
CC   screening of therapeutically useful reagents, in gene therapy, for
CC   chromosome identification, as chromosome marker, and for generating
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 6;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 88
ADA77181
ID   ADA77181 standard; protein; 285 AA.
XX
AC   ADA77181;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003068797-A1.
XX
PD   10-APR-2003.
XX
PF   07-MAY-2002; 2002US-00140921.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
```

PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX

DR WPI; 2003-625489/59.
DR N-PSDB; ADA77180.
XX
PT Novel isolated, secreted and transmembrane PRO polypeptides e.g. PRO1801
PT and PRO1114, useful in the preparation of a medicament for treating a
PT condition responsive to PRO polypeptide, and as therapeutic agents e.g.
PT vaccines.
XX
PS Claim 12; Fig 24; 659pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 89
ADB17921

ID ADB17921 standard; protein; 285 AA.
XX
AC ADB17921;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003077710-A1.
XX
PD 24-APR-2003.
XX
PF 22-APR-2002; 2002US-00127825.
XX
PR 22-OCT-1998; 98US-0105169P.
PR 01-SEP-1999; 99WO-US020111.
PR 18-OCT-1999; 99US-00403297.
PR 30-NOV-1999; 99WO-US028313.
PR 18-FEB-2000; 2000WO-US004342.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-755065/71.
DR N-PSDB; ADB17920.
XX
PT New secreted and transmembrane PRO polypeptides and nucleic acids, useful
PT in gene therapy, in chromosome and gene mapping, as chromosome markers,
PT in tissue typing, and in identifying chromosomes.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 90
ADA86604
ID ADA86604 standard; protein; 285 AA.
XX
AC ADA86604;
XX
DT 20-NOV-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003082709-A1.
XX
PD 01-MAY-2003.
XX
PF 15-MAY-2002; 2002US-00146791.
XX
PR 17-AUG-1998; 98US-0096895P.
PR 02-JUN-1999; 99WO-US012252.
PR 25-AUG-1999; 99US-00380137.
PR 30-MAR-2000; 2000WO-US008439.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.

```
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-786912/74.
DR   N-PSDB; ADA86603.
XX
PT   New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide,
PT   for preparing a composition for treating e.g., tumor, or for tissue
PT   typing.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention describes 305 nucleic acids encoding PRO (secreted and
CC   transmembrane) polypeptides (I). (I) is useful for stimulating the
CC   release of TNF-alpha from human blood, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating the proliferation or differentiation of chondrocyte cells,
CC   for stimulating the proliferation of or gene expression in pericyte
CC   cells, for stimulating the release of proteoglycans from cartilage, for
CC   stimulating the proliferation of inner ear utricular supporting cells,
CC   for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC   the release of a cytokine from PBMC cells, for inhibiting the binding of
CC   A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC   cells, for stimulating proliferation of endothelial cells, for detecting
CC   the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC   prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC   are useful for isolating genomic and cDNA nucleotide sequences or
CC   antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC   in assays to identify other proteins or molecules involved in binding
CC   interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC   and gene mapping, in generation of antisense RNA and DNA, in the
CC   preparation of PRO polypeptide, for generating transgenic animals or
CC   knockout animals which in turn are useful in the development and
CC   screening of therapeutically useful reagents, in gene therapy, for
CC   chromosome identification, as chromosome marker, and for generating
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 91
ADA87707
ID   ADA87707 standard; protein; 285 AA.
XX
AC   ADA87707;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inihibitor; cytokine release stimulator; tumour;
KW   lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003082700-A1.
XX
PD   01-MAY-2003.
XX
PF   23-APR-2002; 2002US-00128684.
XX
PR   05-JUN-2000; 2000US-0209832P.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-786910/74.
DR   N-PSDB; ADA87706.
XX
PT   New PRO nucleic acid, useful for preparing a composition for treating
PT   e.g., tumor or for tissue typing.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention describes 305 nucleic acids encoding PRO (secreted and
CC   transmembrane) polypeptides (I). (I) is useful for stimulating the
CC   release of TNF-alpha from human blood, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating the proliferation or differentiation of chondrocyte cells,
CC   for stimulating the proliferation of or gene expression in pericyte
CC   cells, for stimulating the release of proteoglycans from cartilage, for
CC   stimulating the proliferation of inner ear utricular supporting cells,
CC   for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC   the release of a cytokine from PBMC cells, for inhibiting the binding of
CC   A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC   cells, for stimulating proliferation of endothelial cells, for detecting
CC   the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC   prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC   are useful for isolating genomic and cDNA nucleotide sequences or
CC   antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC   in assays to identify other proteins or molecules involved in binding
CC   interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC   and gene mapping, in generation of antisense RNA and DNA, in the
CC   preparation of PRO polypeptide, for generating transgenic animals or
CC   knockout animals which in turn are useful in the development and
CC   screening of therapeutically useful reagents, in gene therapy, for
CC   chromosome identification, as chromosome marker, and for generating
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
```

```
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 92
ADA46095
ID   ADA46095 standard; protein; 285 AA.
XX
AC   ADA46095;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inihibitor; cytokine release stimulator; tumour;
KW   lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003054516-A1.
XX
PD   20-MAR-2003.
XX
PF   12-APR-2002; 2002US-00121050.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   01-JUN-2001; 2001US-00872035.
PR   01-JUN-2001; 2001WO-US017800.
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
```

PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-521853/49.
DR N-PSDB; ADA46094.
XX
PT New PRO nucleic acid, useful for preparing a composition for treating
PT e.g., tumor.
XX
PS Claim 12; Fig 24; 200pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 93
ADB28125
ID ADB28125 standard; protein; 285 AA.
XX
AC ADB28125;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003082699-A1.
XX
PD 01-MAY-2003.
XX
PF 22-APR-2002; 2002US-00127851.
XX
PR 17-JUN-1998; 98US-0089599P.
PR 02-JUN-1999; 99WO-US012252.
PR 25-AUG-1999; 99US-00380137.
PR 30-NOV-1999; 99WO-US028313.
PR 30-MAR-2000; 2000WO-US008439.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-777202/73.
DR N-PSDB; ADB28124.
XX
PT New PRO nucleic acid, useful for preparing a composition for treating
PT e.g., tumor or for tissue typing.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or

CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 94
ADB28677
ID ADB28677 standard; protein; 285 AA.
XX
AC ADB28677;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003082706-A1.
XX
PD 01-MAY-2003.
XX
PF 24-APR-2002; 2002US-00131836.
XX
PR 09-DEC-1999; 99US-0170262P.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforgre L, Desnoyers L, Filvaroff E;
PI Gao W, Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-777203/73.
DR N-PSDB; ADB28676.
XX
PT New PRO nucleic acid, useful for preparing a composition for treating
PT e.g., tumor or for tissue typing.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
```

```
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
                ||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 95
ADA76629
ID   ADA76629 standard; protein; 285 AA.
XX
AC   ADA76629;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003059909-A1.
XX
PD   27-MAR-2003.
XX
PF   10-MAY-2002; 2002US-00143032.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   01-JUN-2001; 2001US-00872035.
PR   01-JUN-2001; 2001WO-US017800.
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
PR   29-JUN-2001; 2001WO-US021066.
PR   09-JUL-2001; 2001WO-US021735.
PR   18-JUL-2001; 2001US-00908827.
PR   06-AUG-2001; 2001US-00924419.
PR   09-AUG-2001; 2001US-00927796.
PR   16-AUG-2001; 2001US-00931836.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-540684/51.
DR   N-PSDB; ADA76628.
XX
```

PT New secreted and transmembrane nucleic acids and polypeptides, designated
PT as PRO, useful for treating inflammation, organ failure, atherosclerosis,
PT cardiac injury, infertility, birth defects, premature aging, AIDS, or
PT cancer.
XX
PS Claim 12; Fig 24; 660pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 96
ADA88259
ID ADA88259 standard; protein; 285 AA.
XX
AC ADA88259;
XX
DT 20-NOV-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003073213-A1.
XX
PD 17-APR-2003.
XX
PF 17-APR-2002; 2002US-00124819.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.

PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-743816/70.
DR N-PSDB; ADA88258.
XX
PT New secreted and transmembrane PRO polypeptides and nucleic acids, useful
PT in gene therapy, detecting the presence of tumor in a mammal, or
PT modulating the uptake of glucose or free fatty acid by skeletal muscle
PT cells or adipocyte cells.
XX
PS Claim 12; Fig 24; 659pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 97
ADA97264
ID ADA97264 standard; protein; 285 AA.
XX
AC ADA97264;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003082686-A1.

```
XX
PD   01-MAY-2003.
XX
PF   19-APR-2002; 2002US-00125926.
XX
PR   05-JUN-2000; 2000US-0209832P.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI   Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI   Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR   WPI; 2003-755106/71.
DR   N-PSDB; ADA97263.
XX
PT   Isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or
PT   PRO4978, useful in molecular biology, chromosome and gene mapping, in
PT   generating antisense RNA and DNA, and in gene therapy.
XX
PS   Claim 12; Fig 24; 666pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 98
ADB27021
ID   ADB27021 standard; protein; 285 AA.
XX
AC   ADB27021;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003022239-A1.
XX
PD   30-JAN-2003.
XX
PF   12-APR-2002; 2002US-00121049.
XX
PR   18-JUN-1997;   97US-0049911P.
PR   26-AUG-1997;   97US-0056974P.
PR   17-SEP-1997;   97US-0059113P.
PR   17-SEP-1997;   97US-0059115P.
PR   17-SEP-1997;   97US-0059117P.
PR   17-SEP-1997;   97US-0059122P.
PR   17-SEP-1997;   97US-0059184P.
PR   18-SEP-1997;   97US-0059263P.
PR   19-SEP-1997;   97US-0059352P.
PR   19-SEP-1997;   97US-0059588P.
PR   24-SEP-1997;   97US-0059836P.
PR   17-OCT-1997;   97US-0062250P.
PR   17-OCT-1997;   97US-0062285P.
PR   17-OCT-1997;   97US-0062287P.
PR   17-OCT-1997;   97US-0063755P.
PR   24-OCT-1997;   97US-0062814P.
PR   24-OCT-1997;   97US-0062816P.
PR   24-OCT-1997;   97US-0063045P.
PR   24-OCT-1997;   97US-0063082P.
PR   24-OCT-1997;   97US-0063127P.
PR   27-OCT-1997;   97US-0063327P.
PR   27-OCT-1997;   97US-0063329P.
PR   28-OCT-1997;   97US-0063550P.
PR   28-OCT-1997;   97US-0063561P.
PR   29-OCT-1997;   97US-0063704P.
PR   29-OCT-1997;   97US-0063733P.
PR   29-OCT-1997;   97US-0063735P.
PR   29-OCT-1997;   97US-0063738P.
PR   03-NOV-1997;   97US-0064248P.
PR   07-NOV-1997;   97US-0064809P.
PR   12-NOV-1997;   97US-0065186P.
PR   17-NOV-1997;   97US-0065846P.
```

PR 21-NOV-1997; 97US-0066364P.
PR 24-NOV-1997; 97US-0066453P.
PR 24-NOV-1997; 97US-0066511P.
PR 24-NOV-1997; 97US-0066770P.
PR 11-DEC-1997; 97US-0069212P.
PR 11-DEC-1997; 97US-0069278P.
PR 11-DEC-1997; 97US-0069334P.
PR 16-DEC-1997; 97US-0069694P.
PR 23-JAN-1998; 98US-0072320P.
PR 04-FEB-1998; 98US-0073612P.
PR 09-FEB-1998; 98US-0074086P.
PR 09-FEB-1998; 98US-0074092P.
PR 12-MAR-1998; 98US-0077791P.
PR 20-MAR-1998; 98US-0078910P.
PR 25-MAR-1998; 98US-0079294P.
PR 27-MAR-1998; 98US-0079663P.
PR 27-MAR-1998; 98US-0079728P.
PR 31-MAR-1998; 98US-0080165P.
PR 09-APR-1998; 98US-0081229P.
PR 14-APR-1998; 98US-0081695P.
PR 15-APR-1998; 98US-0081817P.
PR 15-APR-1998; 98US-0081818P.
PR 24-APR-1998; 98US-0082999P.
PR 28-APR-1998; 98US-0083322P.
PR 29-APR-1998; 98US-0083545P.
PR 07-MAY-1998; 98US-0084600P.
PR 07-MAY-1998; 98US-0084627P.
PR 07-MAY-1998; 98US-0084637P.
PR 12-MAY-1998; 98US-0085149P.
PR 13-MAY-1998; 98US-0085323P.
PR 13-MAY-1998; 98US-0085338P.
PR 13-MAY-1998; 98US-0085339P.
PR 15-MAY-1998; 98US-0085579P.
PR 15-MAY-1998; 98US-0085697P.
PR 15-MAY-1998; 98US-0085704P.
PR 22-MAY-1998; 98US-0086414P.
PR 22-MAY-1998; 98US-0086430P.
PR 28-MAY-1998; 98US-0087106P.
PR 04-JUN-1998; 98US-0088026P.
PR 10-JUN-1998; 98US-0088730P.
PR 10-JUN-1998; 98US-0088741P.
PR 10-JUN-1998; 98US-0088810P.
PR 11-JUN-1998; 98US-0088858P.
PR 12-JUN-1998; 98WO-US012456.
PR 17-JUN-1998; 98US-0089532P.
PR 17-JUN-1998; 98US-0089599P.
PR 18-JUN-1998; 98US-0089907P.
PR 19-JUN-1998; 98US-0089947P.
PR 23-JUN-1998; 98US-0090349P.
PR 24-JUN-1998; 98US-0090429P.
PR 24-JUN-1998; 98US-0090445P.
PR 24-JUN-1998; 98US-0090538P.
PR 26-JUN-1998; 98US-0090863P.
PR 01-JUL-1998; 98US-0091360P.
PR 02-JUL-1998; 98US-0091519P.
PR 07-JUL-1998; 98US-0091982P.
PR 14-JUL-1998; 98WO-US014552.
PR 20-JUL-1998; 98US-0093339P.
PR 30-JUL-1998; 98US-0094651P.
PR 04-AUG-1998; 98US-0095285P.
PR 04-AUG-1998; 98US-0095301P.
PR 04-AUG-1998; 98US-0095302P.
PR 04-AUG-1998; 98US-0095325P.
PR 11-AUG-1998; 98US-0096143P.
PR 11-AUG-1998; 98US-0096146P.
PR 12-AUG-1998; 98US-0096329P.
PR 17-AUG-1998; 98US-0096768P.
PR 17-AUG-1998; 98US-0096773P.
PR 17-AUG-1998; 98US-0096791P.
PR 17-AUG-1998; 98US-0096891P.
PR 17-AUG-1998; 98US-0096895P.
PR 18-AUG-1998; 98US-0096960P.
PR 19-AUG-1998; 98US-0097141P.
PR 20-AUG-1998; 98US-0097218P.
PR 26-AUG-1998; 98US-0097951P.
PR 26-AUG-1998; 98US-0097986P.
PR 28-AUG-1998; 98WO-US017888.
PR 31-AUG-1998; 98US-0098525P.
PR 01-SEP-1998; 98US-0098750P.
PR 09-SEP-1998; 98US-0099536P.
PR 09-SEP-1998; 98US-0099598P.
PR 09-SEP-1998; 98US-0099601P.
PR 10-SEP-1998; 98US-0099792P.
PR 10-SEP-1998; 98US-0099803P.
PR 10-SEP-1998; 98US-0099816P.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98US-0100262P.
PR 14-SEP-1998; 98US-0100263P.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 15-SEP-1998; 98US-0100390P.
PR 16-SEP-1998; 98US-0100634P.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98US-0100710P.
PR 17-SEP-1998; 98US-0100858P.
PR 17-SEP-1998; 98WO-US019437.
PR 23-SEP-1998; 98US-0101474P.
PR 23-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101741P.
PR 07-OCT-1998; 98US-0103315P.
PR 07-OCT-1998; 98US-0103328P.
PR 07-OCT-1998; 98WO-US021141.
PR 13-OCT-1998; 98US-0104080P.
PR 20-OCT-1998; 98US-0104987P.
PR 22-OCT-1998; 98US-0105169P.
PR 28-OCT-1998; 98US-0106030P.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 30-OCT-1998; 98US-0106464P.
PR 03-NOV-1998; 98US-0106856P.
PR 03-NOV-1998; 98US-0106934P.
PR 10-NOV-1998; 98US-0107783P.
PR 17-NOV-1998; 98US-0108775P.
PR 17-NOV-1998; 98US-0108801P.
PR 17-NOV-1998; 98US-0108802P.
PR 17-NOV-1998; 98US-0108925P.
PR 20-NOV-1998; 98US-0109304P.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 15-DEC-1998; 98US-0112743P.
PR 16-DEC-1998; 98US-0112850P.
PR 22-DEC-1998; 98US-0113296P.
PR 22-DEC-1998; 98US-0113299P.
PR 22-DEC-1998; 98US-0113300P.
PR 22-DEC-1998; 98US-0113313P.
PR 22-DEC-1998; 98US-0113314P.
PR 22-DEC-1998; 98US-0113315P.
PR 22-DEC-1998; 98US-0113510P.
PR 22-DEC-1998; 98US-0113511P.
PR 23-DEC-1998; 98US-0113605P.
PR 23-DEC-1998; 98US-0113621P.
PR 05-JAN-1999; 99WO-US000106.
PR 12-JAN-1999; 99US-0115549P.
PR 12-JAN-1999; 99US-0115557P.
PR 12-JAN-1999; 99US-0115560P.
PR 12-JAN-1999; 99US-0115562P.
PR 12-JAN-1999; 99US-0115564P.
PR 12-JAN-1999; 99US-0115630P.
PR 12-JAN-1999; 99US-0115705P.
PR 12-JAN-1999; 99US-0115733P.

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 99
ADB21954
ID ADB21954 standard; protein; 285 AA.
XX
AC ADB21954;
XX
DT 20-NOV-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003087344-A1.
XX
PD 08-MAY-2003.
XX
PF 16-APR-2002; 2002US-00123905.
XX
PR 18-JUN-1997; 97US-0049911P.
PR 26-AUG-1997; 97US-0056974P.
PR 17-SEP-1997; 97US-0059113P.
PR 17-SEP-1997; 97US-0059115P.
PR 17-SEP-1997; 97US-0059117P.
PR 17-SEP-1997; 97US-0059122P.
PR 17-SEP-1997; 97US-0059184P.
PR 18-SEP-1997; 97US-0059263P.
PR 19-SEP-1997; 97US-0059352P.
PR 19-SEP-1997; 97US-0059588P.
PR 24-SEP-1997; 97US-0059836P.
PR 17-OCT-1997; 97US-0062250P.
PR 17-OCT-1997; 97US-0062285P.
PR 17-OCT-1997; 97US-0062287P.
PR 17-OCT-1997; 97US-0063755P.
PR 24-OCT-1997; 97US-0062814P.
PR 24-OCT-1997; 97US-0062816P.
PR 24-OCT-1997; 97US-0063045P.
PR 24-OCT-1997; 97US-0063082P.
PR 24-OCT-1997; 97US-0063127P.
PR 27-OCT-1997; 97US-0063327P.
PR 27-OCT-1997; 97US-0063329P.
PR 28-OCT-1997; 97US-0063550P.
PR 28-OCT-1997; 97US-0063561P.
PR 29-OCT-1997; 97US-0063704P.
PR 29-OCT-1997; 97US-0063733P.
PR 29-OCT-1997; 97US-0063735P.
PR 29-OCT-1997; 97US-0063738P.
PR 03-NOV-1997; 97US-0064248P.
PR 07-NOV-1997; 97US-0064809P.
PR 12-NOV-1997; 97US-0065186P.
PR 17-NOV-1997; 97US-0065846P.
PR 21-NOV-1997; 97US-0066364P.
PR 24-NOV-1997; 97US-0066453P.
PR 24-NOV-1997; 97US-0066511P.
PR 24-NOV-1997; 97US-0066770P.
PR 11-DEC-1997; 97US-0069212P.
PR 11-DEC-1997; 97US-0069278P.
PR 11-DEC-1997; 97US-0069334P.
PR 16-DEC-1997; 97US-0069694P.
PR 23-JAN-1998; 98US-0072320P.
PR 04-FEB-1998; 98US-0073612P.
PR 09-FEB-1998; 98US-0074086P.
PR 09-FEB-1998; 98US-0074092P.
PR 12-MAR-1998; 98US-0077791P.
PR 20-MAR-1998; 98US-0078910P.
PR 25-MAR-1998; 98US-0079294P.
PR 27-MAR-1998; 98US-0079563P.
PR 27-MAR-1998; 98US-0079728P.
PR 31-MAR-1998; 98US-0080165P.
PR 09-APR-1998; 98US-0081229P.
PR 14-APR-1998; 98US-0081695P.
PR 15-APR-1998; 98US-0081817P.
PR 15-APR-1998; 98US-0081818P.
PR 24-APR-1998; 98US-0082999P.
PR 28-APR-1998; 98US-0083322P.
PR 29-APR-1998; 98US-0083545P.
PR 07-MAY-1998; 98US-0084600P.
PR 07-MAY-1998; 98US-0084627P.
PR 07-MAY-1998; 98US-0084637P.
PR 12-MAY-1998; 98US-0085149P.
PR 13-MAY-1998; 98US-0085323P.
PR 13-MAY-1998; 98US-0085338P.
PR 13-MAY-1998; 98US-0085339P.
PR 15-MAY-1998; 98US-0085579P.
PR 15-MAY-1998; 98US-0085697P.
PR 15-MAY-1998; 98US-0085704P.
PR 22-MAY-1998; 98US-0086414P.
PR 22-MAY-1998; 98US-0086430P.
PR 28-MAY-1998; 98US-0087106P.
PR 04-JUN-1998; 98US-0088026P.
PR 10-JUN-1998; 98US-0088730P.
PR 10-JUN-1998; 98US-0088741P.
PR 10-JUN-1998; 98US-0088810P.
PR 11-JUN-1998; 98US-0088858P.
PR 12-JUN-1998; 98WO-US012456.
PR 17-JUN-1998; 98US-0089532P.
PR 17-JUN-1998; 98US-0089599P.
PR 18-JUN-1998; 98US-0089907P.
PR 19-JUN-1998; 98US-0089947P.
PR 23-JUN-1998; 98US-0090349P.
PR 24-JUN-1998; 98US-0090429P.
PR 24-JUN-1998; 98US-0090445P.
PR 24-JUN-1998; 98US-0090538P.
PR 26-JUN-1998; 98US-0090863P.
PR 01-JUL-1998; 98US-0091360P.
PR 02-JUL-1998; 98US-0091519P.
PR 07-JUL-1998; 98US-0091982P.
PR 14-JUL-1998; 98WO-US014552.
PR 20-JUL-1998; 98US-0093339P.
PR 30-JUL-1998; 98US-0094651P.
PR 04-AUG-1998; 98US-0095285P.
PR 04-AUG-1998; 98US-0095301P.
PR 04-AUG-1998; 98US-0095302P.
PR 04-AUG-1998; 98US-0095325P.
PR 11-AUG-1998; 98US-0096143P.
PR 11-AUG-1998; 98US-0096146P.
PR 12-AUG-1998; 98US-0096329P.

PR 17-AUG-1998; 98US-0096768P.
PR 17-AUG-1998; 98US-0096773P.
PR 17-AUG-1998; 98US-0096791P.
PR 17-AUG-1998; 98US-0096891P.
PR 17-AUG-1998; 98US-0096895P.
PR 18-AUG-1998; 98US-0096960P.
PR 19-AUG-1998; 98US-0097141P.
PR 20-AUG-1998; 98US-0097218P.
PR 26-AUG-1998; 98US-0097951P.
PR 26-AUG-1998; 98US-0097986P.
PR 28-AUG-1998; 98WO-US017888.
PR 31-AUG-1998; 98US-0098525P.
PR 01-SEP-1998; 98US-0098750P.
PR 09-SEP-1998; 98US-0099536P.
PR 09-SEP-1998; 98US-0099598P.
PR 09-SEP-1998; 98US-0099601P.
PR 10-SEP-1998; 98US-0099792P.
PR 10-SEP-1998; 98US-0099803P.
PR 10-SEP-1998; 98US-0099816P.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98US-0100262P.
PR 14-SEP-1998; 98US-0100263P.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 15-SEP-1998; 98US-0100390P.
PR 16-SEP-1998; 98US-0100634P.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98US-0100710P.
PR 17-SEP-1998; 98US-0100858P.
PR 17-SEP-1998; 98WO-US019437.
PR 23-SEP-1998; 98US-0101474P.
PR 23-SEP-1998; 98US-0101477P.
PR 24-SEP-1998; 98US-0101741P.
PR 07-OCT-1998; 98US-0103315P.
PR 07-OCT-1998; 98US-0103328P.
PR 07-OCT-1998; 98WO-US021141.
PR 13-OCT-1998; 98US-0104080P.
PR 20-OCT-1998; 98US-0104987P.
PR 22-OCT-1998; 98US-0105169P.
PR 28-OCT-1998; 98US-0106030P.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 30-OCT-1998; 98US-0106464P.
PR 03-NOV-1998; 98US-0106856P.
PR 03-NOV-1998; 98US-0106934P.
PR 10-NOV-1998; 98US-0107783P.
PR 17-NOV-1998; 98US-0108775P.
PR 17-NOV-1998; 98US-0108801P.
PR 17-NOV-1998; 98US-0108802P.
PR 17-NOV-1998; 98US-0108925P.
PR 20-NOV-1998; 98US-0109304P.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 15-DEC-1998; 98US-0112743P.
PR 16-DEC-1998; 98US-0112850P.
PR 22-DEC-1998; 98US-0113296P.
PR 22-DEC-1998; 98US-0113299P.
PR 22-DEC-1998; 98US-0113300P.
PR 22-DEC-1998; 98US-0113313P.
PR 22-DEC-1998; 98US-0113314P.
PR 22-DEC-1998; 98US-0113315P.
PR 22-DEC-1998; 98US-0113510P.
PR 22-DEC-1998; 98US-0113511P.
PR 23-DEC-1998; 98US-0113605P.
PR 23-DEC-1998; 98US-0113621P.
PR 05-JAN-1999; 99WO-US000106.
PR 12-JAN-1999; 99US-0115549P.
PR 12-JAN-1999; 99US-0115557P.
PR 12-JAN-1999; 99US-0115560P.
PR 12-JAN-1999; 99US-0115562P.
PR 12-JAN-1999; 99US-0115564P.
PR 12-JAN-1999; 99US-0115630P.
PR 12-JAN-1999; 99US-0115705P.
PR 12-JAN-1999; 99US-0115733P.
PR 20-JAN-1999; 99US-0116533P.
PR 01-FEB-1999; 99US-0118210P.

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 100
ADA66645
ID ADA66645 standard; protein; 285 AA.
XX
AC ADA66645;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003068793-A1.
XX
PD 10-APR-2003.
XX
PF 15-APR-2002; 2002US-00123108.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.

PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-695925/66.
DR N-PSDB; ADA66644.
XX
PT Novel secreted and transmembrane PRO polypeptides useful for stimulating
PT release of tumor necrosis factor-alpha from human blood and detecting the
PT presence of a tumor in a mammal.
XX
PS Claim 12; Fig 24; 660pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
Db 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

```
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy         121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy         181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy         241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
                |||||||||||||||||||||||||||||||||||||||||||||
Db         241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 101
ADB22506
ID   ADB22506 standard; protein; 285 AA.
XX
AC   ADB22506;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003077711-A1.
XX
PD   24-APR-2003.
XX
PF   22-APR-2002; 2002US-00127829.
XX
PR   22-OCT-1998;   98US-0105169P.
PR   01-SEP-1999;   99WO-US020111.
PR   18-OCT-1999;   99US-00403297.
PR   30-NOV-1999;   99WO-US028313.
PR   18-FEB-2000; 2000WO-US004342.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-755066/71.
DR   N-PSDB; ADB22505.
XX
PT   New secreted and transmembrane PRO polypeptides and nucleic acids, useful
PT   in gene therapy, as diagnostic markers for the presence of a disease
PT   condition, or as therapeutic targets for treating tumors, diabetes,
PT   obesity or arthritis.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy           1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db           1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy          61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy         121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy         181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy         241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
                |||||||||||||||||||||||||||||||||||||||||||||
Db         241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 102
ADB23279
ID   ADB23279 standard; protein; 285 AA.
XX
AC   ADB23279;
XX
DT   20-NOV-2003  (first entry)
XX
DE   Human PRO polypeptide SEQ ID NO 24.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
```

KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003077712-A1.
XX
PD 24-APR-2003.
XX
PF 22-APR-2002; 2002US-00127835.
XX
PR 20-OCT-1998; 98US-0104987P.
PR 01-SEP-1999; 99WO-US020111.
PR 18-OCT-1999; 99US-00403297.
PR 18-FEB-2000; 2000WO-US004342.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-755067/71.
DR N-PSDB; ADB23278.
XX
PT New isolated, secreted and transmembrane PRO nucleic acid, useful for the
PT diagnosis, prevention and/or treatment of tumors, such as lung, colon,
PT breast, prostate, rectal, cervical and/or liver tumors.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;

Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 103
ADA92001
ID ADA92001 standard; protein; 285 AA.
XX
AC ADA92001;
XX
DT 20-NOV-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003082712-A1.
XX
PD 01-MAY-2003.
XX
PF 16-MAY-2002; 2002US-00147512.
XX
PR 15-MAY-1998; 98US-0085697P.
PR 08-MAR-1999; 99WO-US005028.
PR 25-AUG-1999; 99US-00380138.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786915/74.
DR N-PSDB; ADA92000.
XX
PT New PRO nucleic acid, useful for preparing a composition for treating
PT e.g., tumor or for tissue typing.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of

CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 104
ADB15064
ID ADB15064 standard; protein; 285 AA.
XX
AC ADB15064;
XX
DT 20-NOV-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003087352-A1.
XX
PD 08-MAY-2003.
XX
PF 22-APR-2002; 2002US-00127824.
XX
PR 17-AUG-1998; 98US-0096891P.
PR 02-JUN-1999; 99WO-US012252.
PR 25-AUG-1999; 99US-00380137.
PR 30-MAR-2000; 2000WO-US008439.
PR 30-MAY-2000; 2000WO-US014941.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786943/74.
DR N-PSDB; ADB15063.
XX
PT New PRO nucleic acid, useful for producing a recombiannt PRO polypeptide
PT and for manufacturing a medicament for diagnosing or treating tumor.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
```

```
                  ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
                  ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
                  ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
                  ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
                  |||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 105
ADB38316
ID   ADB38316 standard; protein; 285 AA.
XX
AC   ADB38316;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inihibitor; cytokine release stimulator; tumour;
KW   lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003082766-A1.
XX
PD   01-MAY-2003.
XX
PF   30-MAY-2002; 2002US-00158782.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   01-JUN-2001; 2001US-00872035.
PR   01-JUN-2001; 2001WO-US017800.
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
PR   29-JUN-2001; 2001WO-US021066.
PR   09-JUL-2001; 2001WO-US021735.
PR   18-JUL-2001; 2001US-00908827.
PR   06-AUG-2001; 2001US-00924419.
PR   09-AUG-2001; 2001US-00927796.
PR   16-AUG-2001; 2001US-00931836.
PR   19-DEC-2001; 2001US-00028072.
```

XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786921/74.
DR N-PSDB; ADB38315.
XX
PT New secreted and transmembrane PRO polypeptides and nucleic acids, useful
PT in gene therapy, detecting the presence of tumor in a mammal, or
PT modulating the uptake of glucose or free fatty acid by skeletal muscle
PT cells or adipocyte cells.
XX
PS Claim 12; Fig 24; 660pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 106
ADB37764
ID ADB37764 standard; protein; 285 AA.
XX
AC ADB37764;
XX
DT 04-DEC-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003087347-A1.
XX
PD 08-MAY-2003.
XX
PF 19-APR-2002; 2002US-00125921.
XX
PR 17-AUG-1998; 98US-0096791P.
PR 02-JUN-1999; 99WO-US012252.
PR 25-AUG-1999; 99US-00380137.
PR 30-MAR-2000; 2000WO-US008439.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786938/74.
DR N-PSDB; ADB37763.
XX
PT New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide
PT and for manufacturing a medicament for diagnosing or treating tumor.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.

CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 107
ADB66236
ID ADB66236 standard; protein; 285 AA.
XX
AC ADB66236;
XX
DT 04-DEC-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003082689-A1.
XX
PD 01-MAY-2003.
XX
PF 22-APR-2002; 2002US-00127831.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.

```
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
PR   29-JUN-2001; 2001WO-US021066.
PR   09-JUL-2001; 2001WO-US021735.
PR   18-JUL-2001; 2001US-00908827.
PR   06-AUG-2001; 2001US-00924419.
PR   09-AUG-2001; 2001US-00927796.
PR   16-AUG-2001; 2001US-00931836.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI   Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI   Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR   WPI; 2003-786905/74.
DR   N-PSDB; ADB66235.
XX
PT   New PRO nucleic acid, useful for preparing a composition for treating
PT   e.g. tumor or for tissue typing.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention describes 305 nucleic acids encoding PRO (secreted and
CC   transmembrane) polypeptides (I). (I) is useful for stimulating the
CC   release of TNF-alpha from human blood, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating the proliferation or differentiation of chondrocyte cells,
CC   for stimulating the proliferation of or gene expression in pericyte
CC   cells, for stimulating the release of proteoglycans from cartilage, for
CC   stimulating the proliferation of inner ear utricular supporting cells,
CC   for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC   the release of a cytokine from PBMC cells, for inhibiting the binding of
CC   A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC   cells, for stimulating proliferation of endothelial cells, for detecting
CC   the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC   prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC   are useful for isolating genomic and cDNA nucleotide sequences or
CC   antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC   in assays to identify other proteins or molecules involved in binding
CC   interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC   and gene mapping, in generation of antisense RNA and DNA, in the
CC   preparation of PRO polypeptide, for generating transgenic animals or
CC   knockout animals which in turn are useful in the development and
CC   screening of therapeutically useful reagents, in gene therapy, for
CC   chromosome identification, as chromosome marker, and for generating
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 108
ADB89316
ID   ADB89316 standard; protein; 285 AA.
XX
AC   ADB89316;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003082698-A1.
XX
PD   01-MAY-2003.
XX
PF   22-APR-2002; 2002US-00127850.
XX
PR   20-AUG-1998;   98US-0097218P.
PR   02-JUN-1999;   99WO-US012252.
PR   25-AUG-1999;   99US-00380137.
PR   02-MAR-2000; 2000WO-US005841.
PR   30-MAR-2000; 2000WO-US008439.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI   Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI   Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR   WPI; 2003-743896/70.
DR   N-PSDB; ADB89315.
XX
PT   New PRO nucleic acids and encoded polypeptides, useful in the treatment
PT   of cancer.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
```

CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 109
ADB90048
ID ADB90048 standard; protein; 285 AA.
XX
AC ADB90048;
XX
DT 04-DEC-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.

XX
PN US2003082762-A1.
XX
PD 01-MAY-2003.
XX
PF 15-APR-2002; 2002US-00123235.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.

PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-743899/70.
DR N-PSDB; ADB90047.
XX
PT New secreted and transmembrane PRO polypeptides and nucleic acids, useful
PT in gene therapy, and in the detection and treatment of tumor in a mammal.
XX
PS Claim 12; Fig 24; 649pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 110
ADB39149
ID ADB39149 standard; protein; 285 AA.
XX
AC ADB39149;
XX
DT 04-DEC-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003082764-A1.
XX
PD 01-MAY-2003.
XX
PF 03-MAY-2002; 2002US-00137868.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.

```
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   01-JUN-2001; 2001US-00872035.
PR   01-JUN-2001; 2001WO-US017800.
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
PR   29-JUN-2001; 2001WO-US021066.
PR   09-JUL-2001; 2001WO-US021735.
PR   18-JUL-2001; 2001US-00908827.
PR   06-AUG-2001; 2001US-00924419.
PR   09-AUG-2001; 2001US-00927796.
PR   16-AUG-2001; 2001US-00931836.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-786919/74.
DR   N-PSDB; ADB39148.
XX
PT   New secreted and transmembrane PRO polypeptide useful for detecting the
PT   presence of tumor in a mammal, or modulating the uptake of glucose or
PT   free fatty acid by skeletal muscle cells or adipocyte cells.
XX
PS   Claim 12; Fig 24; 659pp; English.
XX
CC   The invention describes 305 nucleic acids encoding PRO (secreted and
CC   transmembrane) polypeptides (I). (I) is useful for stimulating the
CC   release of TNF-alpha from human blood, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating the proliferation or differentiation of chondrocyte cells,
CC   for stimulating the proliferation of or gene expression in pericyte
CC   cells, for stimulating the release of proteoglycans from cartilage, for
CC   stimulating the proliferation of inner ear utricular supporting cells,
CC   for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC   the release of a cytokine from PBMC cells, for inhibiting the binding of
CC   A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC   cells, for stimulating proliferation of endothelial cells, for detecting
CC   the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC   prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC   are useful for isolating genomic and cDNA nucleotide sequences or
CC   antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC   in assays to identify other proteins or molecules involved in binding
CC   interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC   and gene mapping, in generation of antisense RNA and DNA, in the
CC   preparation of PRO polypeptide, for generating transgenic animals or
CC   knockout animals which in turn are useful in the development and
CC   screening of therapeutically useful reagents, in gene therapy, for
CC   chromosome identification, as chromosome marker, and for generating
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
```

```
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy         121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy         181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy         241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
                |||||||||||||||||||||||||||||||||||||||||||||
Db         241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 111
ADB46772
ID ADB46772 standard; protein; 285 AA.
XX
AC ADB46772;
XX
DT 04-DEC-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003082687-A1.
XX
PD 01-MAY-2003.
XX
PF 19-APR-2002; 2002US-00125930.
XX
PR 05-JUN-2000; 2000US-0209832P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786904/74.
DR N-PSDB; ADB46771.
XX
PT New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or
PT PRO4978, useful in molecular biology, chromosome and gene mapping, in
PT generating antisense RNA and DNA, and in gene therapy.
XX
PS Claim 12; Fig 24; 627pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

```
  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 112
ADB86379
ID ADB86379 standard; protein; 285 AA.
XX
AC ADB86379;
XX
DT 04-DEC-2003 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003082697-A1.
XX
PD 01-MAY-2003.
XX

```
PF   22-APR-2002; 2002US-00127849.
XX
PR   20-OCT-1998;   98US-0104987P.
PR   01-SEP-1999;   99WO-US020111.
PR   18-OCT-1999;   99US-00403297.
PR   18-FEB-2000; 2000WO-US004342.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-743895/70.
DR   N-PSDB; ADB86378.
XX
PT   New secreted and transmembrane PRO polypeptides, useful in the diagnosis
PT   and treatment of cancer.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 113
ADB76984
ID   ADB76984 standard; protein; 285 AA.
XX
AC   ADB76984;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inihibitor; cytokine release stimulator; tumour;
KW   lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003082696-A1.
XX
PD   01-MAY-2003.
XX
PF   22-APR-2002; 2002US-00127848.
XX
PR   03-NOV-1998;   98US-0106934P.
PR   26-JUL-1999;   99US-0145698P.
PR   01-SEP-1999;   99WO-US020111.
PR   18-OCT-1999;   99US-00403297.
PR   05-JAN-2000; 2000WO-US000219.
PR   18-FEB-2000; 2000WO-US004342.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-755109/71.
DR   N-PSDB; ADB76983.
XX
PT   PRO nucleic acid, useful for preparing a composition for treating e.g.,
PT   tumor or for tissue typing.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention describes 305 nucleic acids encoding PRO (secreted and
CC   transmembrane) polypeptides (I). (I) is useful for stimulating the
CC   release of TNF-alpha from human blood, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating the proliferation or differentiation of chondrocyte cells,
CC   for stimulating the proliferation of or gene expression in pericyte
CC   cells, for stimulating the release of proteoglycans from cartilage, for
CC   stimulating the proliferation of inner ear utricular supporting cells,
CC   for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC   the release of a cytokine from PBMC cells, for inhibiting the binding of
CC   A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC   cells, for stimulating proliferation of endothelial cells, for detecting
```

```
CC   the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC   prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC   are useful for isolating genomic and cDNA nucleotide sequences or
CC   antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC   in assays to identify other proteins or molecules involved in binding
CC   interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC   and gene mapping, in generation of antisense RNA and DNA, in the
CC   preparation of PRO polypeptide, for generating transgenic animals or
CC   knockout animals which in turn are useful in the development and
CC   screening of therapeutically useful reagents, in gene therapy, for
CC   chromosome identification, as chromosome marker, and for generating
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 114
ADB34141
ID   ADB34141 standard; protein; 285 AA.
XX
AC   ADB34141;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Human PRO polypeptide SEQ ID NO 24.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003077717-A1.
XX
PD   24-APR-2003.
XX
PF   24-APR-2002; 2002US-00131818.
XX
PR   07-OCT-1998;   98US-0103328P.
PR   01-SEP-1999;   99WO-US020111.
PR   18-OCT-1999;   99US-00403297.
PR   30-NOV-1999;   99WO-US028313.
PR   18-FEB-2000; 2000WO-US004342.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-755072/71.
DR   N-PSDB; ADB34140.
XX
PT   New isolated, secreted and transmembrane PRO polypeptides and nucleic
PT   acids, useful for the diagnosis, prevention and/or treatment of tumors,
PT   such as lung, colon, breast, prostate, rectal, cervical and/or liver
PT   tumors.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
```

```
Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 115
ADB35245
ID   ADB35245 standard; protein; 285 AA.
XX
AC   ADB35245;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Human PRO polypeptide SEQ ID NO 24.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003077719-A1.
XX
PD   24-APR-2003.
XX
PF   24-APR-2002; 2002US-00131824.
XX
PR   09-FEB-1999;   99US-0119341P.
PR   01-DEC-1999;   99WO-US028634.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI   Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI   Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR   WPI; 2003-755074/71.
DR   N-PSDB; ADB35244.
XX
PT   New isolated, secreted and transmembrane PRO polypeptides and nucleic
PT   acids, useful for the diagnosis, prevention and/or treatment of tumors,
PT   such as lung, colon, breast, prostate, rectal, cervical and/or liver
PT   tumors.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 116
ADB33589
ID   ADB33589 standard; protein; 285 AA.
XX
AC   ADB33589;
XX
DT   04-DEC-2003  (first entry)
XX
DE   Human PRO polypeptide SEQ ID NO 24.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
```

XX
PN US2003077716-A1.
XX
PD 24-APR-2003.
XX
PF 24-APR-2002; 2002US-00131813.
XX
PR 07-OCT-1998; 98US-0103315P.
PR 01-SEP-1999; 99WO-US020111.
PR 18-OCT-1999; 99US-00403297.
PR 18-FEB-2000; 2000WO-US004342.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-755071/71.
DR N-PSDB; ADB33588.
XX
PT New secreted and transmembrane PRO polypeptides and nucleic acids, useful
PT in gene therapy, in chromosome and gene mapping, as chromosome markers,
PT in tissue typing, and in identifying chromosomes.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 117
ADB34693
ID ADB34693 standard; protein; 285 AA.
XX
AC ADB34693;
XX
DT 04-DEC-2003 (first entry)
XX
DE Human PRO polypeptide SEQ ID NO 24.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003077718-A1.
XX
PD 24-APR-2003.
XX
PF 24-APR-2002; 2002US-00131823.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.

PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 10-MAR-2000; 2000WO-US006319.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.

XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-755073/71.
DR N-PSDB; ADB34692.
XX
PT New isolated, secreted and transmembrane PRO polypeptides and nucleic
PT acids, useful for the diagnosis, prevention and/or treatment of tumors,
PT such as lung, colon, breast, prostate, rectal, cervical and/or liver
PT tumors.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
Db 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
Db 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
Db 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
Db 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

```
Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 118
ADB35797
ID ADB35797 standard; protein; 285 AA.
XX
AC ADB35797;
XX
DT 04-DEC-2003 (first entry)
XX
DE Human PRO polypeptide SEQ ID NO 24.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003077720-A1.
XX
PD 24-APR-2003.
XX
PF 24-APR-2002; 2002US-00131830.
XX
PR 09-DEC-1999; 99US-0170262P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-755075/71.
DR N-PSDB; ADB35796.
XX
PT New isolated, secreted and transmembrane PRO polypeptides and nucleic
PT acids, useful for the diagnosis, prevention and/or treatment of tumors,
PT such as lung, colon, breast, prostate, rectal, cervical and/or liver
PT tumors.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

```
  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 119
ADB46192
ID ADB46192 standard; protein; 285 AA.
XX
AC ADB46192;
XX
DT 04-DEC-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inihibitor; cytokine release stimulator; tumour;
KW lung tumoue; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003082692-A1.
XX
PD 01-MAY-2003.
XX
PF 22-APR-2002; 2002US-00127842.
XX
PR 03-MAR-2000; 2000US-0187202P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX

PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786906/74.
DR N-PSDB; ADB46191.
XX
PT New PRO nucleic acid, useful for preparing a composition for treating
PT e.g., tumor or for tissue typing.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 120
ABR56191

ID ABR56191 standard; protein; 285 AA.
XX
AC ABR56191;
XX
DT 18-DEC-2003 (first entry)
XX
DE Human B-cell activating factor, BAFF.
XX
KW Human; BAFF; protein co-ordinate data; B-cell activating factor; stroke;
KW autoimmune disease; allergy; organ rejection; immune response; psoriasis;
KW inflammation; systemic lupus erythematosis; lupus neuritis; asthma; BlyS;
KW chronic obstructive pulmonary disease; bronchitis; emphysema; cirrhosis;
KW multiple sclerosis; uveitis; Alzheimer's disease; atherosclerosis; zTNF4;
KW traumatic spinal cord injury; coronary restenosis; diabetic nephropathy;
KW ischaemic congestive heart failure; hepatitis C; glomerulonephritis;
KW osteoarthritis; rheumatoid arthritis; atopic dermatitis; Crohn's disease;
KW systemic sclerosis; radiation-induced fibrosis; ulcerative colitis;
KW multiple myeloma; cachexia; Tumour Necrosis Factor family; TNF family;
KW TALL-1; THANK; Immunosuppressive; Antiallergic; Antiinflammatory;
KW Dermatological; Antiasthmatic; Neuroprotective; Ophthalmological;
KW Nootropic; Tranquiliser; Vulnerary; Cerebroprotective; Virucide;
KW Antiarteriosclerotic; Vasotropic; Cardiant; Hepatotropic; Antidiabetic;
KW Nephrotropic; Osteopathic; Antiarthritic; Antirheumatic; Antipsoriatic;
KW Antiemetic; Cytostatic; Antiulcer; Immunomodulator.
XX
OS Homo sapiens.
XX
FH Key Location/Qualifiers
FT Domain 136. .285
FT /label= Extracellular_domain
XX
PN WO2003022877-A1.
XX
PD 20-MAR-2003.
XX
PF 06-SEP-2002; 2002WO-US028579.
XX
PR 06-SEP-2001; 2001US-0317524P.
XX
PA (BIOJ) BIOGEN INC.
XX
PI Karpusas M;
XX
DR WPI; 2003-402877/38.
XX
PT Crystallizable composition used for designing chemical entities or
PT compounds comprises B cell activating factor polypeptide.
XX
PS Disclosure; Fig 9A; 137pp; English.
XX
CC The present invention relates to a crystallisable composition or a
CC crystal comprising B-cell activating factor (BAFF) or its trimer. The
CC present sequence is human BAFF. The composition can be used in a
CC pharmaceutical composition for treating conditions associated with
CC abnormal BAFF induced activation in humans e.g. autoimmune diseases,
CC allergy, inhibitor response to a therapeutic agent, rejection of a donor
CC organ or tissue, unwanted inflammatory or immune response, systemic lupus
CC erythematosis, lupus neuritis, asthma, chronic obstructive pulmonary
CC disease, bronchitis, emphysema, multiple sclerosis, uveitis, Alzheimer's
CC disease, traumatic spinal cord injury, stroke, atherosclerosis, coronary
CC restenosis, ischaemic congestive heart failure, cirrhosis, hepatitis C,
CC diabetic nephropathy, glomerulonephritis, osteoarthritis, rheumatoid
CC arthritis, psoriasis, atopic dermatitis, systemic sclerosis, radiation-
CC induced fibrosis, Crohn's disease, ulcerative colitis, multiple myeloma
CC and cachexia. BAFF belongs to the Tumour Necrosis Factor (TNF) family and
CC is a type II membrane protein. BAFF is expressed in different cell types,
CC including T-cells and dendritic cells. The full-length BAFF is a trimeric
CC molecule that includes a globular extracellular TNF-homologous domain, an
CC extracellular stalk, a short transmembrane segment and a small
CC cytoplasmic domain. BAFF is also known as BlyS, TALL-1, THANK and zTNF4
XX
SQ Sequence 285 AA;

```
  Query Match           100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 121
ADC35212
ID   ADC35212 standard; protein; 285 AA.
XX
AC   ADC35212;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Human TNF ligand family member #15.
XX
KW   human; tumour necrosis factor; TNF ligand; endokine alpha;
KW   excessive bone resorption disorder; osteoporosis; Paget's disease;
KW   arterial calcification.
XX
OS   Homo sapiens.
XX
PN   US2003100074-A1.
XX
PD   29-MAY-2003.
XX
PF   15-AUG-2002; 2002US-00218547.
XX
PR   16-AUG-2001; 2001US-0312542P.
PR   30-OCT-2001; 2001US-0330761P.
XX
PA   (YUGG/) YU G.
PA   (NIJJ/) NI J.
PA   (ROSE/) ROSEN C A.
PA   (NARD/) NARDELLI B.
XX
PI   Yu G,  Ni J,  Rosen CA,  Nardelli B;
XX
DR   WPI; 2003-696072/66.
DR   N-PSDB; ADC35211.
XX
PT   New Endokine alpha gene useful for preparing a composition for treating a
PT   disease associated with excessive or insufficient bone resorption e.g.,
PT   osteoporosis, Paget's disease or arterial calcification.
XX
PS   Disclosure; SEQ ID NO 30; 145pp; English.
XX
CC   The invention relates to an isolated nucleic acid molecule encoding a
CC   tumour necrosis factor family ligand. A composition comprising the
CC   isolated antibody or its fragment is used for treating an individual in
CC   need of decreased level of endokine alpha activity. The endokine alpha
CC   polypeptide present in a heterotrimeric complex is used for treating an
CC   individual having a disorder associated with excessive bone resorption,
CC   e.g. osteoporosis, Paget's disease or arterial calcification. Treating an
CC   individual having a disorder associated with insufficient bone resorption
CC   comprises administering an endokine alpha antagonist, which is the
CC   antibody that binds specifically to endokine alpha polypeptide. The
CC   present sequence represents the amino acid sequence of a tumour necrosis
CC   factor family ligand.
XX
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 122
ADC50065
ID   ADC50065 standard; protein; 285 AA.
XX
AC   ADC50065;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO; secreted polypeptide;
KW   transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha;
KW   chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate;
KW   rectum; kidney; cervix; liver; microvascular endothelial cell;
KW   glucose uptake modulator; FFA uptake modulator; cell proliferation;
KW   cell differentiation; skeletal muscle cell; adipocyte cell;
KW   pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder; thalassaemia;
KW   immune system cell infiltration; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003092106-A1.
XX
PD   15-MAY-2003.
XX
PF   24-APR-2002; 2002US-00131822.
XX
PR   19-AUG-1998;   98US-0097141P.
PR   02-JUN-1999;   99WO-US012252.
PR   25-AUG-1999;   99US-00380137.
PR   30-MAR-2000; 2000WO-US008439.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
```

PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-801171/75.
DR N-PSDB; ADC50064.
XX
PT New secreted and transmembrane nucleic acid useful for treating
PT inflammation, organ failure, atherosclerosis, cardiac injury,
PT infertility, birth defects, premature aging, acquired immunodeficiency
PT syndrome or cancer.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA (free fatty acid) by skeletal muscle cells or adipocyte
CC cells, for stimulating differentiation of adipocyte cells, for
CC stimulating proliferation of or gene expression in pericyte cells, for
CC stimulating the proliferation of inner ear utricular supporting cells or
CC T-lymphocyte cells, for inducing endothelial cell tube formation and for
CC treating various bone and/or cartilage disorders such as sports injuries
CC and arthritis. PRO polypeptides which stimulate the release of
CC proteoglycans from cartilage are useful for treating sports-related joint
CC problems, articular cartilage defects, osteoarthritis and rheumatoid
CC arthritis. PRO polypeptides are also useful for treating various
CC mammalian haemoglobin-associated disorders such as various thalassaemias
CC and conditions which may benefit from enhanced local immune system cell
CC infiltration. This sequence represents a human PRO polypeptide of the
CC invention. Note: The sequence data for this patent is also available in
CC electronic format from USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 123
ADC71612
ID ADC71612 standard; protein; 285 AA.
XX
AC ADC71612;
XX
DT 18-DEC-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO; secreted polypeptide;
KW transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha;
KW chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate;
KW rectum; kidney; cervix; liver; microvascular endothelial cell;
KW glucose uptake modulator; FFA uptake modulator; cell proliferation;
KW cell differentiation; skeletal muscle cell; adipocyte cell;
KW pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder; thalassaemia;
KW immune system cell infiltration; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003092107-A1.
XX
PD 15-MAY-2003.
XX
PF 24-APR-2002; 2002US-00131828.
XX
PR 07-OCT-1998; 98US-0103315P.
PR 01-SEP-1999; 99WO-US020111.
PR 18-OCT-1999; 99US-00403297.
PR 18-FEB-2000; 2000WO-US004342.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-801172/75.
DR N-PSDB; ADC71611.
XX
PT New secreted and transmembrane nucleic acids and polypeptides, designated
PT as PRO, useful for treating inflammation, organ failure, atherosclerosis,
PT cardiac injury, infertility, birth defects, premature aging, AIDS, or
PT cancer.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or

CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA (free fatty acid) by skeletal muscle cells or adipocyte
CC cells, for stimulating differentiation of adipocyte cells, for
CC stimulating proliferation of or gene expression in pericyte cells, for
CC stimulating the proliferation of inner ear utricular supporting cells or
CC T-lymphocyte cells, for inducing endothelial cell tube formation and for
CC treating various bone and/or cartilage disorders such as sports injuries
CC and arthritis. PRO polypeptides which stimulate the release of
CC proteoglycans from cartilage are useful for treating sports-related joint
CC problems, articular cartilage defects, osteoarthritis and rheumatoid
CC arthritis. PRO polypeptides are also useful for treating various
CC mammalian haemoglobin-associated disorders such as various thalassaemias
CC and conditions which may benefit from enhanced local immune system cell
CC infiltration. This sequence represents a human PRO polypeptide of the
CC invention. Note: The sequence data for this patent is also available in
CC electronic format from USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 124
ADC59591
ID ADC59591 standard; protein; 285 AA.
XX
AC ADC59591;
XX
DT 18-DEC-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO; secreted polypeptide;
KW transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha;
KW chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate;
KW rectum; kidney; cervix; liver; microvascular endothelial cell;
KW glucose uptake modulator; FFA uptake modulator; cell proliferation;
KW cell differentiation; skeletal muscle cell; adipocyte cell;
KW pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder; thalassaemia;
KW immune system cell infiltration; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003092105-A1.
XX
PD 15-MAY-2003.
XX
PF 24-APR-2002; 2002US-00131821.
XX
PR 09-DEC-1999; 99US-0170262P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-801170/75.
DR N-PSDB; ADC59590.
XX
PT New secreted and transmembrane nucleic acids and polypeptides, designated
PT as PRO, useful for treating inflammation, organ failure, atherosclerosis,
PT cardiac injury, infertility, birth defects, premature aging, AIDS, or
PT cancer.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA (free fatty acid) by skeletal muscle cells or adipocyte
CC cells, for stimulating differentiation of adipocyte cells, for
CC stimulating proliferation of or gene expression in pericyte cells, for
CC stimulating the proliferation of inner ear utricular supporting cells or
CC T-lymphocyte cells, for inducing endothelial cell tube formation and for
CC treating various bone and/or cartilage disorders such as sports injuries
CC and arthritis. PRO polypeptides which stimulate the release of
CC proteoglycans from cartilage are useful for treating sports-related joint
CC problems, articular cartilage defects, osteoarthritis and rheumatoid
CC arthritis. PRO polypeptides are also useful for treating various
CC mammalian haemoglobin-associated disorders such as various thalassaemias
CC and conditions which may benefit from enhanced local immune system cell
CC infiltration. This sequence represents a human PRO polypeptide of the
CC invention. Note: The sequence data for this patent is also available in
CC electronic format from USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
```

```
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 125
ADC52598
ID   ADC52598 standard; protein; 285 AA.
XX
AC   ADC52598;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein Seq ID24.
XX
KW   human; PRO; membrane bound protein; membrane bound receptor;
KW   cell proliferation; cell migration; cell differentiation;
KW   mitogenic factor; survival factor; cytotoxic factor;
KW   differentiation factor; neuropeptide; hormone; cell receptor;
KW   receptor-ligand interaction; cytostatic; chondrocyte; tumour.
XX
OS   Homo sapiens.
XX
PN   US2003087365-A1.
XX
PD   08-MAY-2003.
XX
PF   23-APR-2002; 2002US-00128689.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   10-MAR-1999;   2000WO-US006319.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000;  2000WO-US000219.
PR   06-JAN-2000;  2000WO-US000277.
PR   06-JAN-2000;  2000WO-US000376.
PR   11-FEB-2000;  2000WO-US003565.
PR   18-FEB-2000;  2000WO-US004341.
PR   18-FEB-2000;  2000WO-US004342.
PR   22-FEB-2000;  2000WO-US004414.
PR   24-FEB-2000;  2000WO-US004914.
PR   24-FEB-2000;  2000WO-US005004.
PR   01-MAR-2000;  2000WO-US005601.
PR   02-MAR-2000;  2000WO-US005746.
PR   02-MAR-2000;  2000WO-US005841.
PR   15-MAR-2000;  2000WO-US006884.
PR   20-MAR-2000;  2000WO-US007377.
PR   21-MAR-2000;  2000WO-US007532.
PR   30-MAR-2000;  2000WO-US008439.
PR   17-MAY-2000;  2000WO-US013705.
PR   22-MAY-2000;  2000WO-US014042.
PR   30-MAY-2000;  2000WO-US014941.
PR   02-JUN-2000;  2000WO-US015264.
PR   28-JUL-2000;  2000WO-US020710.
PR   11-AUG-2000;  2000WO-US022031.
PR   23-AUG-2000;  2000WO-US023522.
PR   24-AUG-2000;  2000WO-US023328.
PR   08-NOV-2000;  2000WO-US030952.
PR   10-NOV-2000;  2000WO-US030873.
PR   01-DEC-2000;  2000WO-US032678.
PR   20-DEC-2000;  2000US-00747259.
PR   20-DEC-2000;  2000WO-US034956.
PR   28-FEB-2001;  2001US-00796498.
PR   28-FEB-2001;  2001WO-US006520.
PR   01-MAR-2001;  2001WO-US006666.
PR   09-MAR-2001;  2001US-00802706.
PR   14-MAR-2001;  2001US-00808689.
PR   22-MAR-2001;  2001US-00816744.
PR   05-APR-2001;  2001US-00828366.
PR   10-MAY-2001;  2001US-00854208.
PR   10-MAY-2001;  2001US-00854280.
PR   18-MAY-2001;  2001US-00860216.
PR   25-MAY-2001;  2001US-00866028.
PR   25-MAY-2001;  2001US-00866034.
PR   25-MAY-2001;  2001WO-US017092.
PR   01-JUN-2001;  2001US-00872035.
PR   01-JUN-2001;  2001WO-US017800.
PR   05-JUN-2001;  2001US-00874503.
PR   14-JUN-2001;  2001US-00882636.
PR   19-JUN-2001;  2001US-00886342.
PR   20-JUN-2001;  2001WO-US019692.
PR   21-JUN-2001;  2001US-00887879.
PR   22-JUN-2001;  2001WO-US020116.
PR   29-JUN-2001;  2001WO-US021066.
PR   09-JUL-2001;  2001WO-US021735.
PR   18-JUL-2001;  2001US-00908827.
PR   06-AUG-2001;  2001US-00924419.
PR   09-AUG-2001;  2001US-00927796.
PR   16-AUG-2001;  2001US-00931836.
PR   19-DEC-2001;  2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godwoski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-801150/75.
DR   N-PSDB; ADC52597.
XX
PT   New PRO nucleic acid, useful for manufacturing a medicament for
PT   diagnosing or treating tumor.
```

XX
PS Claim 1; SEQ ID NO 24; 637pp; English.
XX
CC This invention relates to novel nucleic acids encoding human PRO secreted
CC and transmembrane proteins. Extracellular proteins play important roles
CC in the formation, differentiation and maintenance of multicellular
CC organisms. The fate of many individual cells (for example proliferation,
CC migration or differentiation) is typically governed by information
CC received from other cells and the immediate environment. The information
CC is often transmitted by secreted polypeptides (for example mitogenic
CC factors, survival factors, cytotoxic factors, differentiation factors,
CC neuropeptides and hormones) which are received and interpreted by diverse
CC cell receptors or membrane bound proteins. These membrane bound proteins
CC and receptors may be of use as pharmaceutical and diagnostic agents, such
CC as in the blocking of receptor-ligand interactions. The current invention
CC provides the amino acid sequences of novel human membrane bound receptors
CC and proteins, along with the cDNA sequences encoding them. The novel
CC proteins of the invention may have cytostatic activities through the
CC stimulation of chondrocytes. The nucleic acids of the invention may be
CC useful for the manufacture of a medicament for diagnosing or treating a
CC tumour in a mammal. In addition, they may be useful for measuring or
CC detecting the expression of a tumour associated gene. The present
CC sequence is the amino acid sequence of a human PRO protein of the
CC invention.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 126
ADC56952
ID ADC56952 standard; protein; 285 AA.
XX
AC ADC56952;
XX
DT 18-DEC-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein Seq ID24.
XX
KW human; PRO; membrane bound protein; membrane bound receptor;
KW cell proliferation; cell migration; cell differentiation;
KW mitogenic factor; survival factor; cytotoxic factor;
KW differentiation factor; neuropeptide; hormone; cell receptor;
KW receptor-ligand interaction; cytostatic; chondrocyte; tumour.
XX
OS Homo sapiens.
XX
PN US2003087366-A1.
XX
PD 08-MAY-2003.
XX
PF 23-APR-2002; 2002US-00128694.
XX
PR 02-MAR-2000; 2000WO-US005841.
PR 30-MAY-2000; 2000WO-US014941.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-801151/75.
DR N-PSDB; ADC56951.
XX
PT New PRO nucleic acid, useful for manufacturing a medicament for
PT diagnosing or treating tumor.
XX
PS Claim 1; SEQ ID NO 24; 637pp; English.
XX
CC This invention relates to novel nucleic acids encoding human PRO secreted
CC and transmembrane proteins. Extracellular proteins play important roles
CC in the formation, differentiation and maintenance of multicellular
CC organisms. The fate of many individual cells (for example proliferation,
CC migration or differentiation) is typically governed by information
CC received from other cells and the immediate environment. The information
CC is often transmitted by secreted polypeptides (for example mitogenic
CC factors, survival factors, cytotoxic factors, differentiation factors,
CC neuropeptides and hormones) which are received and interpreted by diverse
CC cell receptors or membrane bound proteins. These membrane bound proteins
CC and receptors may be of use as pharmaceutical and diagnostic agents, such
CC as in the blocking of receptor-ligand interactions. The current invention
CC provides the amino acid sequences of novel human membrane bound receptors
CC and proteins, along with the cDNA sequences encoding them. The novel
CC proteins of the invention may have cytostatic activities through the
CC stimulation of chondrocytes. The nucleic acids of the invention may be
CC useful for the manufacture of a medicament for diagnosing or treating a
CC tumour in a mammal. In addition, they may be useful for measuring or
CC detecting the expression of a tumour associated gene. The present
CC sequence is the amino acid sequence of a human PRO protein of the
CC invention.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 127
ADC60143

ID ADC60143 standard; protein; 285 AA.
XX
AC ADC60143;
XX
DT 18-DEC-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO; secreted polypeptide;
KW transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha;
KW chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate;
KW rectum; kidney; cervix; liver; microvascular endothelial cell;
KW glucose uptake modulator; FFA uptake modulator; cell proliferation;
KW cell differentiation; skeletal muscle cell; adipocyte cell;
KW pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder; thalassaemia;
KW immune system cell infiltration; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003087367-A1.
XX
PD 08-MAY-2003.
XX
PF 24-APR-2002; 2002US-00131825.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 10-MAR-1999; 2000WO-US006319.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-801152/75.
DR N-PSDB; ADC60142.
XX
PT New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide
PT and for manufacturing a medicament for diagnosing or treating tumor.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO

CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA (free fatty acid) by skeletal muscle cells or adipocyte
CC cells, for stimulating differentiation of adipocyte cells, for
CC stimulating proliferation of or gene expression in pericyte cells, for
CC stimulating the proliferation of inner ear utricular supporting cells or
CC T-lymphocyte cells, for inducing endothelial cell tube formation and for
CC treating various bone and/or cartilage disorders such as sports injuries
CC and arthritis. PRO polypeptides which stimulate the release of
CC proteoglycans from cartilage are useful for treating sports-related joint
CC problems, articular cartilage defects, osteoarthritis and rheumatoid
CC arthritis. PRO polypeptides are also useful for treating various
CC mammalian haemoglobin-associated disorders such as various thalassaemias
CC and conditions which may benefit from enhanced local immune system cell
CC infiltration. This sequence represents a human PRO polypeptide of the
CC invention. Note: The sequence data for this patent is also available in
CC electronic format from USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 128
ADC50618
ID ADC50618 standard; protein; 285 AA.
XX
AC ADC50618;
XX
DT 18-DEC-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO; secreted polypeptide;
KW transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha;
KW chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate;
KW rectum; kidney; cervix; liver; microvascular endothelial cell;
KW glucose uptake modulator; FFA uptake modulator; cell proliferation;
KW cell differentiation; skeletal muscle cell; adipocyte cell;
KW pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder; thalassaemia;
KW immune system cell infiltration; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003087361-A1.
XX
PD 08-MAY-2003.
XX
PF 22-APR-2002; 2002US-00127841.
XX
PR 09-SEP-1998; 98US-0099536P.
PR 01-SEP-1999; 99WO-US020111.
PR 18-OCT-1999; 99US-00403297.
PR 18-FEB-2000; 2000WO-US004342.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-801146/75.
DR N-PSDB; ADC50617.
XX
PT New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide
PT and for manufacturing a medicament for diagnosing or treating tumor.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA (free fatty acid) by skeletal muscle cells or adipocyte
CC cells, for stimulating differentiation of adipocyte cells, for
CC stimulating proliferation of or gene expression in pericyte cells, for
CC stimulating the proliferation of inner ear utricular supporting cells or
CC T-lymphocyte cells, for inducing endothelial cell tube formation and for
CC treating various bone and/or cartilage disorders such as sports injuries
CC and arthritis. PRO polypeptides which stimulate the release of
CC proteoglycans from cartilage are useful for treating sports-related joint
CC problems, articular cartilage defects, osteoarthritis and rheumatoid
CC arthritis. PRO polypeptides are also useful for treating various
CC mammalian haemoglobin-associated disorders such as various thalassaemias
CC and conditions which may benefit from enhanced local immune system cell
CC infiltration. This sequence represents a human PRO polypeptide of the
CC invention. Note: The sequence data for this patent is also available in
CC electronic format from USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

```
  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 129
ADC65145
ID   ADC65145 standard; protein; 285 AA.
XX
AC   ADC65145;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003087362-A1.
XX
PD   08-MAY-2003.
XX
PF   22-APR-2002; 2002US-00127844.
XX
PR   05-JUN-2000; 2000US-0209832P.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-801147/75.
DR   N-PSDB; ADC65144.
XX
PT   New PRO nucleic acid, useful for manufacturing a medicament for
PT   diagnosing or treating tumor.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 130
ADC54243
ID   ADC54243 standard; protein; 285 AA.
XX
AC   ADC54243;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein Seq ID24.
XX
KW   human; PRO; membrane bound protein; membrane bound receptor;
KW   cell proliferation; cell migration; cell differentiation;
KW   mitogenic factor; survival factor; cytotoxic factor;
```

```
KW   differentiation factor; neuropeptide; hormone; cell receptor;
KW   receptor-ligand interaction; cytostatic; chondrocyte; tumour.
XX
OS   Homo sapiens.
XX
PN   US2003087363-A1.
XX
PD   08-MAY-2003.
XX
PF   23-APR-2002; 2002US-00128687.
XX
PR   10-SEP-1998;   98US-0099816P.
PR   01-SEP-1999;   99WO-US020111.
PR   18-OCT-1999;   99US-00403297.
PR   18-FEB-2000; 2000WO-US004342.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-801148/75.
DR   N-PSDB; ADC54242.
XX
PT   New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide
PT   and for manufacturing a medicament for diagnosing or treating tumor.
XX
PS   Claim 1; SEQ ID NO 24; 637pp; English.
XX
CC   This invention relates to novel nucleic acids encoding human PRO secreted
CC   and transmembrane proteins. Extracellular proteins play important roles
CC   in the formation, differentiation and maintenance of multicellular
CC   organisms. The fate of many individual cells (for example proliferation,
CC   migration or differentiation) is typically governed by information
CC   received from other cells and the immediate environment. The information
CC   is often transmitted by secreted polypeptides (for example mitogenic
CC   factors, survival factors, cytotoxic factors, differentiation factors,
CC   neuropeptides and hormones) which are received and interpreted by diverse
CC   cell receptors or membrane bound proteins. These membrane bound proteins
CC   and receptors may be of use as pharmaceutical and diagnostic agents, such
CC   as in the blocking of receptor-ligand interactions. The current invention
CC   provides the amino acid sequences of novel human membrane bound receptors
CC   and proteins, along with the cDNA sequences encoding them. The novel
CC   proteins of the invention may have cytostatic activities through the
CC   stimulation of chondrocytes. The nucleic acids of the invention may be
CC   useful for the manufacture of a medicament for diagnosing or treating a
CC   tumour in a mammal. In addition, they may be useful for measuring or
CC   detecting the expression of a tumour associated gene. The present
CC   sequence is the amino acid sequence of a human PRO protein of the
CC   invention.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 131
ADC53204
ID   ADC53204 standard; protein; 285 AA.
XX
AC   ADC53204;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein Seq ID24.
XX
KW   human; PRO; membrane bound protein; membrane bound receptor;
KW   cell proliferation; cell migration; cell differentiation;
KW   mitogenic factor; survival factor; cytotoxic factor;
KW   differentiation factor; neuropeptide; hormone; cell receptor;
KW   receptor-ligand interaction; cytostatic; chondrocyte; tumour.
XX
OS   Homo sapiens.
XX
PN   US2003087364-A1.
XX
PD   08-MAY-2003.
XX
PF   23-APR-2002; 2002US-00128688.
XX
PR   09-FEB-1999;   99US-0119341P.
PR   01-DEC-1999;   99WO-US028634.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-801149/75.
DR   N-PSDB; ADC53203.
XX
PT   New PRO nucleic acid, useful for manufacturing a medicament for
PT   diagnosing or treating tumor.
XX
PS   Claim 1; SEQ ID NO 24; 637pp; English.
XX
CC   This invention relates to novel nucleic acids encoding human PRO secreted
CC   and transmembrane proteins. Extracellular proteins play important roles
CC   in the formation, differentiation and maintenance of multicellular
CC   organisms. The fate of many individual cells (for example proliferation,
CC   migration or differentiation) is typically governed by information
CC   received from other cells and the immediate environment. The information
CC   is often transmitted by secreted polypeptides (for example mitogenic
CC   factors, survival factors, cytotoxic factors, differentiation factors,
CC   neuropeptides and hormones) which are received and interpreted by diverse
CC   cell receptors or membrane bound proteins. These membrane bound proteins
CC   and receptors may be of use as pharmaceutical and diagnostic agents, such
CC   as in the blocking of receptor-ligand interactions. The current invention
CC   provides the amino acid sequences of novel human membrane bound receptors
CC   and proteins, along with the cDNA sequences encoding them. The novel
CC   proteins of the invention may have cytostatic activities through the
CC   stimulation of chondrocytes. The nucleic acids of the invention may be
CC   useful for the manufacture of a medicament for diagnosing or treating a
CC   tumour in a mammal. In addition, they may be useful for measuring or
CC   detecting the expression of a tumour associated gene. The present
CC   sequence is the amino acid sequence of a human PRO protein of the
CC   invention.
XX
```

```
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 132
ADC58727
ID   ADC58727 standard; protein; 285 AA.
XX
AC   ADC58727;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein Seq ID24.
XX
KW   human; PRO; membrane bound protein; membrane bound receptor;
KW   cell proliferation; cell migration; cell differentiation;
KW   mitogenic factor; survival factor; cytotoxic factor;
KW   differentiation factor; neuropeptide; hormone; cell receptor;
KW   receptor-ligand interaction; cytostatic; chondrocyte; tumour.
XX
OS   Homo sapiens.
XX
PN   US2003087359-A1.
XX
PD   08-MAY-2003.
XX
PF   22-APR-2002; 2002US-00127834.
XX
PR   17-SEP-1998;   98US-0100710P.
PR   01-SEP-1999;   99WO-US020111.
PR   18-OCT-1999;   99US-00403297.
PR   30-NOV-1999;   99WO-US028313.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-801144/75.
DR   N-PSDB; ADC58726.
XX
PT   New PRO nucleic acid, useful for preparing a recombinant PRO polypeptide
PT   and for manufacturing a medicament for diagnosing or treating tumor.
XX
PS   Claim 1; SEQ ID NO 24; 637pp; English.
XX
CC   This invention relates to novel nucleic acids encoding human PRO secreted
CC   and transmembrane proteins. Extracellular proteins play important roles
CC   in the formation, differentiation and maintenance of multicellular
CC   organisms. The fate of many individual cells (for example proliferation,
CC   migration or differentiation) is typically governed by information
CC   received from other cells and the immediate environment. The information
CC   is often transmitted by secreted polypeptides (for example mitogenic
CC   factors, survival factors, cytotoxic factors, differentiation factors,
CC   neuropeptides and hormones) which are received and interpreted by diverse
CC   cell receptors or membrane bound proteins. These membrane bound proteins
CC   and receptors may be of use as pharmaceutical and diagnostic agents, such
CC   as in the blocking of receptor-ligand interactions. The current invention
CC   provides the amino acid sequences of novel human membrane bound receptors
CC   and proteins, along with the cDNA sequences encoding them. The novel
CC   proteins of the invention may have cytostatic activities through the
CC   stimulation of chondrocytes. The nucleic acids of the invention may be
CC   useful for the manufacture of a medicament for diagnosing or treating a
CC   tumour in a mammal. In addition, they may be useful for measuring or
CC   detecting the expression of a tumour associated gene. The present
CC   sequence is the amino acid sequence of a human PRO protein of the
CC   invention.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 133
ADC55605
ID   ADC55605 standard; protein; 285 AA.
XX
AC   ADC55605;
XX
DT   18-DEC-2003  (first entry)
XX
DE   Novel human secreted and transmembrane protein Seq ID24.
XX
KW   human; PRO; membrane bound protein; membrane bound receptor;
KW   cell proliferation; cell migration; cell differentiation;
KW   mitogenic factor; survival factor; cytotoxic factor;
KW   differentiation factor; neuropeptide; hormone; cell receptor;
KW   receptor-ligand interaction; cytostatic; chondrocyte; tumour.
XX
OS   Homo sapiens.
XX
PN   US2003087360-A1.
XX
PD   08-MAY-2003.
XX
PF   22-APR-2002; 2002US-00127836.
XX
PR   17-NOV-1998;   98US-0108802P.
```

PR 01-SEP-1999; 99WO-US020111.
PR 18-OCT-1999; 99US-00403297.
PR 18-FEB-2000; 2000WO-US004342.
PR 02-JUN-2000; 2000WO-US015264.
PR 23-AUG-2000; 2000WO-US023522.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-801145/75.
DR N-PSDB; ADC55604.
XX
PT New PRO nucleic acid, useful for manufacturing a medicament for
PT diagnosing or treating tumor.
XX
PS Claim 1; SEQ ID NO 24; 637pp; English.
XX
CC This invention relates to novel nucleic acids encoding human PRO secreted
CC and transmembrane proteins. Extracellular proteins play important roles
CC in the formation, differentiation and maintenance of multicellular
CC organisms. The fate of many individual cells (for example proliferation,
CC migration or differentiation) is typically governed by information
CC received from other cells and the immediate environment. The information
CC is often transmitted by secreted polypeptides (for example mitogenic
CC factors, survival factors, cytotoxic factors, differentiation factors,
CC neuropeptides and hormones) which are received and interpreted by diverse
CC cell receptors or membrane bound proteins. These membrane bound proteins
CC and receptors may be of use as pharmaceutical and diagnostic agents, such
CC as in the blocking of receptor-ligand interactions. The current invention
CC provides the amino acid sequences of novel human membrane bound receptors
CC and proteins, along with the cDNA sequences encoding them. The novel
CC proteins of the invention may have cytostatic activities through the
CC stimulation of chondrocytes. The nucleic acids of the invention may be
CC useful for the manufacture of a medicament for diagnosing or treating a
CC tumour in a mammal. In addition, they may be useful for measuring or
CC detecting the expression of a tumour associated gene. The present
CC sequence is the amino acid sequence of a human PRO protein of the
CC invention.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 134
ADC58175

ID ADC58175 standard; protein; 285 AA.
XX
AC ADC58175;
XX
DT 18-DEC-2003 (first entry)
XX
DE Novel human secreted and transmembrane protein Seq ID24.
XX
KW human; PRO; membrane bound protein; membrane bound receptor;
KW cell proliferation; cell migration; cell differentiation;
KW mitogenic factor; survival factor; cytotoxic factor;
KW differentiation factor; neuropeptide; hormone; cell receptor;
KW receptor-ligand interaction; cytostatic; chondrocyte; tumour.
XX
OS Homo sapiens.
XX
PN US2003087346-A1.
XX
PD 08-MAY-2003.
XX
PF 17-APR-2002; 2002US-00124815.
XX
PR 09-DEC-1999; 99US-0170262P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-801137/75.
DR N-PSDB; ADC58174.
XX
PT Isolated nucleic acid for use in industrial applications has at least 80
PT percent nucleic acid sequence identity to nucleotide sequence that
PT encodes amino acid sequence selected from amino acid sequence group.
XX
PS Claim 1; SEQ ID NO 24; 637pp; English.
XX
CC This invention relates to novel nucleic acids encoding human PRO secreted
CC and transmembrane proteins. Extracellular proteins play important roles
CC in the formation, differentiation and maintenance of multicellular
CC organisms. The fate of many individual cells (for example proliferation,
CC migration or differentiation) is typically governed by information
CC received from other cells and the immediate environment. The information
CC is often transmitted by secreted polypeptides (for example mitogenic
CC factors, survival factors, cytotoxic factors, differentiation factors,
CC neuropeptides and hormones) which are received and interpreted by diverse
CC cell receptors or membrane bound proteins. These membrane bound proteins
CC and receptors may be of use as pharmaceutical and diagnostic agents, such
CC as in the blocking of receptor-ligand interactions. The current invention
CC provides the amino acid sequences of novel human membrane bound receptors
CC and proteins, along with the cDNA sequences encoding them. The novel
CC proteins of the invention may have cytostatic activities through the
CC stimulation of chondrocytes. The nucleic acids of the invention may be
CC useful for the manufacture of a medicament for diagnosing or treating a
CC tumour in a mammal. In addition, they may be useful for measuring or
CC detecting the expression of a tumour associated gene. The present
CC sequence is the amino acid sequence of a human PRO protein of the
CC invention.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
```

```
Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFPIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFPIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 135
ADD02849
ID   ADD02849 standard; protein; 285 AA.
XX
AC   ADD02849;
XX
DT   01-JAN-2004  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO; secreted polypeptide;
KW   transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha;
KW   chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate;
KW   rectum; kidney; cervix; liver; microvascular endothelial cell;
KW   glucose uptake modulator; FFA uptake modulator; cell proliferation;
KW   cell differentiation; skeletal muscle cell; adipocyte cell;
KW   pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder; thalassaemia;
KW   immune system cell infiltration; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003092104-A1.
XX
PD   15-MAY-2003.
XX
PF   24-APR-2002; 2002US-00131817.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   10-MAR-2000; 2000WO-US006319.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   01-JUN-2001; 2001US-00872035.
PR   01-JUN-2001; 2001WO-US017800.
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
PR   29-JUN-2001; 2001WO-US021066.
PR   09-JUL-2001; 2001WO-US021735.
PR   18-JUL-2001; 2001US-00908827.
PR   06-AUG-2001; 2001US-00924419.
PR   09-AUG-2001; 2001US-00927796.
PR   16-AUG-2001; 2001US-00931836.
```

PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-801169/75.
DR N-PSDB; ADD02848.
XX
PT New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or
PT PRO4978, useful in molecular biology, chromosome and gene mapping, in
PT generating antisense RNA and DNA, and in gene therapy.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA (free fatty acid) by skeletal muscle cells or adipocyte
CC cells, for stimulating differentiation of adipocyte cells, for
CC stimulating proliferation of or gene expression in pericyte cells, for
CC stimulating the proliferation of inner ear utricular supporting cells or
CC T-lymphocyte cells, for inducing endothelial cell tube formation and for
CC treating various bone and/or cartilage disorders such as sports injuries
CC and arthritis. PRO polypeptides which stimulate the release of
CC proteoglycans from cartilage are useful for treating sports-related joint
CC problems, articular cartilage defects, osteoarthritis and rheumatoid
CC arthritis. PRO polypeptides are also useful for treating various
CC mammalian haemoglobin-associated disorders such as various thalassaemias
CC and conditions which may benefit from enhanced local immune system cell
CC infiltration. This sequence represents a human PRO polypeptide of the
CC invention. Note: The sequence data for this patent is also available in
CC electronic format from USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 136
ADC89841
ID ADC89841 standard; protein; 285 AA.
XX
AC ADC89841;
XX
DT 01-JAN-2004 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inhibitor; cytokine release stimulator; tumour;
KW lung tumour; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003087348-A1.
XX
PD 08-MAY-2003.
XX
PF 19-APR-2002; 2002US-00125923.
XX
PR 05-JUN-2000; 2000US-0209832P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-786939/74.
DR N-PSDB; ADC89840.
XX
PT New PRO nucleic acid, useful for manufacturing a medicament for
PT diagnosing or treating tumor.
XX
PS Claim 12; SEQ ID NO 24; 637pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating

```
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 137
ADC69260
ID   ADC69260 standard; protein; 285 AA.
XX
AC   ADC69260;
XX
DT   01-JAN-2004  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003194770-A1.
XX
PD   16-OCT-2003.
XX
PF   21-MAY-2002; 2002US-00152375.
XX
PR   03-MAR-2000; 2000US-0187202P.
PR   30-MAY-2000; 2000WO-US014941.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-844453/78.
DR   N-PSDB; ADC69259.
XX
PT   New isolated, secreted and transmembrane PRO polypeptides and nucleic
PT   acids, useful for the diagnosis, prevention and/or treatment of tumors,
PT   such as lung, colon, breast, prostate, rectal, cervical and/or liver
PT   tumors.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   the USPTO website at seqdata.uspto.gov.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 138
```

ADC48149
ID ADC48149 standard; protein; 285 AA.
XX
AC ADC48149;
XX
DT 01-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003194773-A1.
XX
PD 16-OCT-2003.
XX
PF 21-MAY-2002; 2002US-00152391.
XX
PR 09-DEC-1999; 99US-0170262P.
PR 30-MAY-2000; 2000WO-US014941.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-844455/78.
DR N-PSDB; ADC48148.
XX
PT New secreted and transmembrane PRO nucleic acids and polypeptides, useful
PT for detecting a tumor, stimulating the release of tumor necrosis factor
PT alpha and stimulating the proliferation of endothelial cells.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 139
ADD09678
ID ADD09678 standard; protein; 285 AA.
XX
AC ADD09678;
XX
DT 01-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003194776-A1.
XX
PD 16-OCT-2003.
XX
PF 29-MAY-2002; 2002US-00157785.
XX
PR 05-JUN-2000; 2000US-0209832P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;

PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-852596/79.
DR N-PSDB; ADD09677.
XX
PT New secreted and transmembrane PRO nucleic acids and polypeptides, useful
PT for detecting a tumor, stimulating the release of proteoglycans from
PT cartilage and inhibiting the differentiation of adipocyte cells.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 140

ADD04253
ID ADD04253 standard; protein; 285 AA.
XX
AC ADD04253;
XX
DT 01-JAN-2004 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO; secreted polypeptide;
KW transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha;
KW chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate;
KW rectum; kidney; cervix; liver; microvascular endothelial cell;
KW glucose uptake modulator; FFA uptake modulator; cell proliferation;
KW cell differentiation; skeletal muscle cell; adipocyte cell;
KW pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder; thalassaemia;
KW immune system cell infiltration; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003087354-A1.
XX
PD 08-MAY-2003.
XX
PF 22-APR-2002; 2002US-00127827.
XX
PR 17-AUG-1998; 98US-0096891P.
PR 02-JUN-1999; 99WO-US012252.
PR 25-AUG-1999; 99US-00380137.
PR 30-MAR-2000; 2000WO-US008439.
PR 30-MAY-2000; 2000WO-US014941.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-801139/75.
DR N-PSDB; ADD04252.
XX
PT New PRO nucleic acid, useful for manufacturing a medicament for
PT diagnosing or treating tumor.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA (free fatty acid) by skeletal muscle cells or adipocyte
CC cells, for stimulating differentiation of adipocyte cells, for
CC stimulating proliferation of or gene expression in pericyte cells, for

```
CC   stimulating the proliferation of inner ear utricular supporting cells or
CC   T-lymphocyte cells, for inducing endothelial cell tube formation and for
CC   treating various bone and/or cartilage disorders such as sports injuries
CC   and arthritis. PRO polypeptides which stimulate the release of
CC   proteoglycans from cartilage are useful for treating sports-related joint
CC   problems, articular cartilage defects, osteoarthritis and rheumatoid
CC   arthritis. PRO polypeptides are also useful for treating various
CC   mammalian haemoglobin-associated disorders such as various thalassaemias
CC   and conditions which may benefit from enhanced local immune system cell
CC   infiltration. This sequence represents a human PRO polypeptide of the
CC   invention. Note: The sequence data for this patent is also available in
CC   electronic format from USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 141
ADC80209
ID   ADC80209 standard; protein; 285 AA.
XX
AC   ADC80209;
XX
DT   01-JAN-2004  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO; secreted polypeptide;
KW   transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha;
KW   chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate;
KW   rectum; kidney; cervix; liver; microvascular endothelial cell;
KW   glucose uptake modulator; FFA uptake modulator; cell proliferation;
KW   cell differentiation; skeletal muscle cell; adipocyte cell;
KW   pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder; thalassaemia;
KW   immune system cell infiltration; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003092103-A1.
XX
PD   15-MAY-2003.
XX
PF   24-APR-2002; 2002US-00131815.
XX
PR   22-DEC-1998;   98US-0113511P.
PR   01-DEC-1999;   99WO-US028634.
PR   22-FEB-2000; 2000WO-US004414.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-801168/75.
DR   N-PSDB; ADC80208.
XX
PT   New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or
PT   PRO4978, useful in molecular biology, chromosome and gene mapping, in
PT   generating antisense RNA and DNA, and in gene therapy.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA (free fatty acid) by skeletal muscle cells or adipocyte
CC   cells, for stimulating differentiation of adipocyte cells, for
CC   stimulating proliferation of or gene expression in pericyte cells, for
CC   stimulating the proliferation of inner ear utricular supporting cells or
CC   T-lymphocyte cells, for inducing endothelial cell tube formation and for
CC   treating various bone and/or cartilage disorders such as sports injuries
CC   and arthritis. PRO polypeptides which stimulate the release of
CC   proteoglycans from cartilage are useful for treating sports-related joint
CC   problems, articular cartilage defects, osteoarthritis and rheumatoid
CC   arthritis. PRO polypeptides are also useful for treating various
CC   mammalian haemoglobin-associated disorders such as various thalassaemias
CC   and conditions which may benefit from enhanced local immune system cell
CC   infiltration. This sequence represents a human PRO polypeptide of the
CC   invention. Note: The sequence data for this patent is also available in
CC   electronic format from USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
```

```
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 142
ADD10716
ID ADD10716 standard; protein; 285 AA.
XX
AC ADD10716;
XX
DT 01-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003194774-A1.
XX
PD 16-OCT-2003.
XX
PF 21-MAY-2002; 2002US-00152399.
XX
PR 03-MAR-2000; 2000US-0187202P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-852594/79.
DR N-PSDB; ADD10715.
XX
PT New secreted and transmembrane PRO nucleic acids and polypeptides, useful
PT for detecting a tumor, stimulating the proliferation or differentiation
PT of chondrocyte cells and stimulating the release of tumor necrosis factor
PT alpha.
XX
PS Claim 12; SEQ ID NO 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

```
  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              |||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 143
ADD10387
ID ADD10387 standard; protein; 285 AA.
XX
AC ADD10387;
XX
DT 01-JAN-2004 (first entry)
XX
DE Human secreted/transmembrane PRO polypeptide #49.
XX
KW human; secreted protein; transmembrane protein; cardiovascular disorder;
KW endothelial disorder; angiogenic disorder; myocardial infarction;
KW cardiac hypertrophy; trauma; cancer; age-related macular degeneration;
KW angiogenesis; endothelial cell apoptosis; smooth muscle cell growth;
KW endothelial cell tube formation.
XX
OS Homo sapiens.
XX
PN US2003105011-A1.
XX
PD 05-JUN-2003.
XX
PF 16-AUG-2002; 2002US-00223084.
XX
PR 15-SEP-2000; 2000US-0232887P.
PR 20-JUN-2001; 2001WO-US019692.
PR 09-JUL-2001; 2001WO-US021735.
PR 20-FEB-2002; 2002US-00081056.
XX

PA (GETH) GENENTECH INC.
XX
PI Baker KP, Ferrara N, Gerber H, Gerritsen ME, Goddard A;
PI Godowski PJ, Gurney AL, Hillan KJ, Marsters SA, Pan J, Stephan JF;
PI Watanabe CK, Williams PM, Wood WI, Ye W;
XX
DR WPI; 2003-810831/76.
DR N-PSDB; ADD10386.
XX
PT New isolated nucleic acid encoding a secreted and transmembrane
PT polypeptide for treating a cardiovascular, endothelial, or angiogenic
PT disorder in a mammal, such as cancer or age-related macular degeneration.
XX
PS Claim 11; SEQ ID NO 98; 493pp; English.
XX
CC The invention relates to an isolated nucleic acid encoding a secreted and
CC transmembrane polypeptide (PRO). The nucleic acid, a polypeptide encoded
CC by the nucleic acid, or an agonist or antagonist, is used to treat a
CC cardiovascular, endothelial, or angiogenic disorder in a mammal,
CC preferably a human. The human may have suffered a myocardial infarction
CC or has cardiac hypertrophy, trauma, a cancer, or age-related macular
CC degeneration. The cardiac hypertrophy is characterised by the presence of
CC an elevated level of PGF-2 alpha. A PRO polypeptide, given in the
CC specification, or an agonist is used to inhibit or stimulate endothelial
CC cell growth in a mammal. PRO21 or an agonist is used to induce cardiac
CC hypertrophy. PRO1376 or PRO1449 is used to stimulate angiogenesis.
CC PRO4302 or an agonist is used to induce endothelial cell apoptosis. A PRO
CC polypeptide, given in the specification, or an agonist is used to
CC stimulate or inhibit smooth muscle cell growth, or to induce endothelial
CC cell tube formation. The present sequence represents the amino acid
CC sequence of a PRO polypeptide of the invention.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 144
ADC47597
ID ADC47597 standard; protein; 285 AA.
XX
AC ADC47597;
XX
DT 01-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003194771-A1.
XX
PD 16-OCT-2003.
XX
PF 21-MAY-2002; 2002US-00152377.
XX
PR 09-DEC-1999; 99US-0170262P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Gurney SL, Smith V;
PI Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-844454/78.
DR N-PSDB; ADC47596.
XX
PT New secreted and transmembrane PRO polypeptides and nucleic acids useful
PT for detecting a tumor, stimulating the release of proteoglycans from
PT cartilage and stimulating the proliferation of endothelial cells.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 145
ADC79657
ID ADC79657 standard; protein; 285 AA.
XX
AC ADC79657;
XX
DT 01-JAN-2004 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO; secreted polypeptide;
KW transmembrane polypeptide; tumour necrosis factor-alpha; TNF-alpha;
KW chondrocyte; tumour; cancer; adrenal; lung; colon; breast; prostate;
KW rectum; kidney; cervix; liver; microvascular endothelial cell;
KW glucose uptake modulator; FFA uptake modulator; cell proliferation;
KW cell differentiation; skeletal muscle cell; adipocyte cell;
KW pericyte cell; inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder; thalassaemia;
KW immune system cell infiltration; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003087358-A1.
XX
PD 08-MAY-2003.
XX
PF 22-APR-2002; 2002US-00127833.
XX
PR 01-SEP-1998; 98US-0098750P.
PR 01-SEP-1999; 99WO-US020111.
PR 18-OCT-1999; 99US-00403297.
PR 18-FEB-2000; 2000WO-US004342.
PR 08-NOV-2000; 2000WO-US030952.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-801143/75.
DR N-PSDB; ADC79656.
XX
PT New PRO nucleic acid, useful for manufacturing a medicament for
PT diagnosing or treating tumor.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA (free fatty acid) by skeletal muscle cells or adipocyte
CC cells, for stimulating differentiation of adipocyte cells, for
CC stimulating proliferation of or gene expression in pericyte cells, for
CC stimulating the proliferation of inner ear utricular supporting cells or
CC T-lymphocyte cells, for inducing endothelial cell tube formation and for
CC treating various bone and/or cartilage disorders such as sports injuries
CC and arthritis. PRO polypeptides which stimulate the release of
CC proteoglycans from cartilage are useful for treating sports-related joint
CC problems, articular cartilage defects, osteoarthritis and rheumatoid
CC arthritis. PRO polypeptides are also useful for treating various
CC mammalian haemoglobin-associated disorders such as various thalassaemias
CC and conditions which may benefit from enhanced local immune system cell
CC infiltration. This sequence represents a human PRO polypeptide of the
CC invention. Note: The sequence data for this patent is also available in
CC electronic format from USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

```
  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 146
ADD11347
ID ADD11347 standard; protein; 285 AA.
XX
AC ADD11347;
XX
DT 01-JAN-2004 (first entry)
XX
DE Human secreted/transmembrane PRO polypeptide #49.
XX

KW human; secreted protein; transmembrane protein; cardiovascular disorder;
KW endothelial disorder; angiogenic disorder; myocardial infarction;
KW cardiac hypertrophy; trauma; cancer; age-related macular degeneration;
KW angiogenesis; endothelial cell apoptosis; smooth muscle cell growth;
KW endothelial cell tube formation.
XX
OS Homo sapiens.
XX
PN US2003105013-A1.
XX
PD 05-JUN-2003.
XX
PF 16-AUG-2002; 2002US-00223090.
XX
PR 20-JUN-2001; 2001WO-US019692.
PR 09-JUL-2001; 2001WO-US021735.
PR 20-FEB-2002; 2002US-00081056.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Ferrara N, Gerber H, Gerritsen ME, Goddard A;
PI Godowski PJ, Gurney AL, Hillan KJ, Marsters SA, Pan J, Stephan JF;
PI Watanabe CK, Williams PM, Wood WI, Ye W;
XX
DR WPI; 2003-801242/75.
DR N-PSDB; ADD11346.
XX
PT New isolated nucleic acid encoding a secreted and transmembrane
PT polypeptide, useful for treating a cardiovascular, endothelial, or
PT angiogenic disorder in a mammal, such as cancer or age-related macular
PT degeneration.
XX
PS Claim 11; SEQ ID NO 98; 493pp; English.
XX
CC The invention relates to an isolated nucleic acid encoding a secreted and
CC transmembrane polypeptide (PRO). The nucleic acid, a polypeptide encoded
CC by the nucleic acid, or an agonist or antagonist, is used to treat a
CC cardiovascular, endothelial, or angiogenic disorder in a mammal,
CC preferably a human. The human may have suffered a myocardial infarction
CC or has cardiac hypertrophy, trauma, a cancer, or age-related macular
CC degeneration. The cardiac hypertrophy is characterised by the presence of
CC an elevated level of PGF-2 alpha. A PRO polypeptide, given in the
CC specification, or an agonist is used to inhibit or stimulate endothelial
CC cell growth in a mammal. PRO21 or an agonist is used to induce cardiac
CC hypertrophy. PRO1376 or PRO1449 is used to stimulate angiogenesis.
CC PRO4302 or an agonist is used to induce endothelial cell apoptosis. A PRO
CC polypeptide, given in the specification, or an agonist is used to
CC stimulate or inhibit smooth muscle cell growth, or to induce endothelial
CC cell tube formation. The present sequence represents the amino acid
CC sequence of a PRO polypeptide of the invention.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 147
ADD09126
ID ADD09126 standard; protein; 285 AA.
XX
AC ADD09126;
XX
DT 01-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003194775-A1.
XX
PD 16-OCT-2003.
XX
PF 28-MAY-2002; 2002US-00156848.
XX
PR 03-MAR-2000; 2000US-0187202P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-852595/79.
DR N-PSDB; ADD09125.
XX
PT New secreted and transmembrane PRO nucleic acids and polypeptides, useful
PT for detecting a tumor, stimulating the release of tumor necrosis factor
PT alpha from blood and stimulating the release of proteoglycans from
PT cartilage.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for

```
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 148
ADD40839
ID   ADD40839 standard; protein; 285 AA.
XX
AC   ADD40839;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inhibitor; cytokine release stimulator; tumour;
KW   lung tumour; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003203438-A1.
XX
PD   30-OCT-2003.
XX
PF   15-MAY-2002; 2002US-00146786.
XX
PR   24-NOV-1997;   97US-0066511P.
PR   16-SEP-1998;   98WO-US019330.
PR   25-AUG-1999;   99US-00380139.
PR   22-FEB-2000; 2000WO-US004414.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-875645/81.
DR   N-PSDB; ADD40838.
XX
PT   New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or
PT   PRO4978, useful in molecular biology, chromosome and gene mapping, in
PT   generating antisense RNA and DNA, and in gene therapy.
XX
PS   Claim 12; SEQ ID NO 24; 637pp; English.
XX
CC   The invention describes 305 nucleic acids encoding PRO (secreted and
CC   transmembrane) polypeptides (I). (I) is useful for stimulating the
CC   release of TNF-alpha from human blood, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating the proliferation or differentiation of chondrocyte cells,
CC   for stimulating the proliferation of or gene expression in pericyte
CC   cells, for stimulating the release of proteoglycans from cartilage, for
CC   stimulating the proliferation of inner ear utricular supporting cells,
CC   for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC   the release of a cytokine from PBMC cells, for inhibiting the binding of
CC   A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC   cells, for stimulating proliferation of endothelial cells, for detecting
CC   the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC   prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC   are useful for isolating genomic and cDNA nucleotide sequences or
CC   antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC   in assays to identify other proteins or molecules involved in binding
CC   interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC   and gene mapping, in generation of antisense RNA and DNA, in the
CC   preparation of PRO polypeptide, for generating transgenic animals or
CC   knockout animals which in turn are useful in the development and
CC   screening of therapeutically useful reagents, in gene therapy, for
CC   chromosome identification, as chromosome marker, and for generating
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

```
RESULT 149
ADD51978
ID   ADD51978 standard; protein; 285 AA.
XX
AC   ADD51978;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003194769-A1.
XX
PD   16-OCT-2003.
XX
PF   21-MAY-2002; 2002US-00152374.
XX
PR   09-DEC-1999;   99US-0170262P.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-852593/79.
DR   N-PSDB; ADD51977.
XX
PT   New isolated, secreted and transmembrane PRO polypeptides and nucleic
PT   acids, useful for detection of tumors, modulating the uptake of glucose
PT   or free fatty acids and stimulating the release of proteoglycans from
PT   cartilage.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   the USPTO website at seqdata.uspto.gov.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 150
ADD52718
ID   ADD52718 standard; protein; 285 AA.
XX
AC   ADD52718;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003194792-A1.
XX
PD   16-OCT-2003.
XX
PF   15-APR-2002; 2002US-00123156.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
```

PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 10-MAR-1999; 2000WO-US006319.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-852599/79.
DR N-PSDB; ADD52717.
XX
PT New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or
PT PRO4978, useful in chromosome and gene mapping, in generating antisense
PT RNA and DNA, and in the treatment of cancer.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

```
  Query Match           100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

```
RESULT 151
ADD53270
ID   ADD53270 standard; protein; 285 AA.
XX
AC   ADD53270;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inhibitor; cytokine release stimulator; tumour;
KW   lung tumour; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003203437-A1.
XX
PD   30-OCT-2003.
XX
PF   15-MAY-2002; 2002US-00146728.
XX
PR   01-JUL-1998;   98US-0091360P.
PR   02-JUN-1999;   99WO-US012252.
PR   01-DEC-2000; 2000US-00380137.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI   Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI   Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR   WPI; 2003-875644/81.
DR   N-PSDB; ADD53269.
XX
PT   New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or
PT   PRO4978, useful in molecular biology, chromosome and gene mapping, in
PT   generating antisense RNA and DNA, and in gene therapy.
XX
PS   Claim 12; SEQ ID NO 24; 659pp; English.
XX
CC   The invention describes 305 nucleic acids encoding PRO (secreted and
CC   transmembrane) polypeptides (I). (I) is useful for stimulating the
CC   release of TNF-alpha from human blood, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating the proliferation or differentiation of chondrocyte cells,
CC   for stimulating the proliferation of or gene expression in pericyte
CC   cells, for stimulating the release of proteoglycans from cartilage, for
CC   stimulating the proliferation of inner ear utricular supporting cells,
CC   for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC   the release of a cytokine from PBMC cells, for inhibiting the binding of
CC   A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC   cells, for stimulating proliferation of endothelial cells, for detecting
CC   the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC   prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC   are useful for isolating genomic and cDNA nucleotide sequences or
CC   antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC   in assays to identify other proteins or molecules involved in binding
CC   interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC   and gene mapping, in generation of antisense RNA and DNA, in the
CC   preparation of PRO polypeptide, for generating transgenic animals or
CC   knockout animals which in turn are useful in the development and
CC   screening of therapeutically useful reagents, in gene therapy, for
CC   chromosome identification, as chromosome marker, and for generating
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
SQ   Sequence 285 AA;
```

```
  Query Match           100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

```
RESULT 152
ADD37140
ID   ADD37140 standard; protein; 285 AA.
XX
AC   ADD37140;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Human secreted/transmembrane PRO polypeptide #49.
XX
KW   human; secreted protein; transmembrane protein; cardiovascular disorder;
KW   endothelial disorder; angiogenic disorder; myocardial infarction;
KW   cardiac hypertrophy; trauma; cancer; age-related macular degeneration;
KW   angiogenesis; endothelial cell apoptosis; smooth muscle cell growth;
KW   endothelial cell tube formation.
XX
```

OS Homo sapiens.
XX
PN US2003105012-A1.
XX
PD 05-JUN-2003.
XX
PF 16-AUG-2002; 2002US-00223088.
XX
PR 15-SEP-2000; 2000US-0232887P.
PR 20-JUN-2001; 2001WO-US019692.
PR 09-JUL-2001; 2001WO-US021735.
PR 20-FEB-2002; 2002US-00081056.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Ferrara N, Gerber H, Gerritsen ME, Goddard A;
PI Godowski PJ, Gurney AL, Hillan KJ, Marsters SA, Pan J, Stephan JF;
PI Watanabe CK, Williams PM, Wood WI, Ye W;
XX
DR WPI; 2003-829354/77.
DR N-PSDB; ADD37139.
XX
PT New isolated nucleic acids encoding a secreted and transmembrane
PT polypeptide for treating a cardiovascular, endothelial, or angiogenic
PT disorder in a mammal, such as cancer or age-related macular degeneration.
XX
PS Claim 11; SEQ ID NO 98; 492pp; English.
XX
CC The invention relates to an isolated nucleic acid encoding a secreted and
CC transmembrane polypeptide (PRO). The nucleic acid, a polypeptide encoded
CC by the nucleic acid, or an agonist or antagonist, is used to treat a
CC cardiovascular, endothelial, or angiogenic disorder in a mammal,
CC preferably a human. The human may have suffered a myocardial infarction
CC or has cardiac hypertrophy, trauma, a cancer, or age-related macular
CC degeneration. The cardiac hypertrophy is characterised by the presence of
CC an elevated level of PGF-2 alpha. A PRO polypeptide, given in the
CC specification, or an agonist is used to inhibit or stimulate endothelial
CC cell growth in a mammal. PRO21 or an agonist is used to induce cardiac
CC hypertrophy. PRO1376 or PRO1449 is used to stimulate angiogenesis.
CC PRO4302 or an agonist is used to induce endothelial cell apoptosis. A PRO
CC polypeptide, given in the specification, or an agonist is used to
CC stimulate or inhibit smooth muscle cell growth, or to induce endothelial
CC cell tube formation. The present sequence represents the amino acid
CC sequence of a PRO polypeptide of the invention.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 153

ADD51426
ID ADD51426 standard; protein; 285 AA.
XX
AC ADD51426;
XX
DT 15-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003194779-A1.
XX
PD 16-OCT-2003.
XX
PF 30-MAY-2002; 2002US-00160500.
XX
PR 05-JUN-2000; 2000US-0209832P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-852597/79.
DR N-PSDB; ADD51425.
XX
PT New secreted and transmembrane PRO nucleic acids and polypeptides, useful
PT for detecting the presence of a tumor, stimulating the release of tumor
PT necrosis factor alpha from human blood and treating, e.g. organ failure.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,

```
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   the USPTO website at seqdata.uspto.gov.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 154
ADD02225
ID   ADD02225 standard; protein; 285 AA.
XX
AC   ADD02225;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003203431-A1.
XX
PD   30-OCT-2003.
XX
PF   24-APR-2002; 2002US-00131820.
XX
PR   28-OCT-1998;   98US-0106030P.
PR   01-SEP-1999;   99WO-US020111.
PR   18-OCT-1999;   99US-00403297.
PR   18-FEB-2000; 2000WO-US004342.
PR   24-AUG-2000; 2000WO-US023328.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI   Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI   Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR   WPI; 2003-875638/81.
DR   N-PSDB; ADD02224.
XX
PT   New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or
PT   PRO4978, useful in molecular biology, chromosome and gene mapping, in
PT   generating antisense RNA and DNA, and in gene therapy.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

```
RESULT 155
ADD01659
ID   ADD01659 standard; protein; 285 AA.
XX
AC   ADD01659;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003203430-A1.
XX
PD   30-OCT-2003.
XX
PF   23-APR-2002; 2002US-00128685.
XX
PR   11-AUG-1998;   98US-0096143P.
PR   02-JUN-1999;   99WO-US012252.
PR   30-MAR-2000; 2000US-00380137.
PR   30-MAR-2000; 2000WO-US008439.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI   Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI   Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR   WPI; 2003-875637/81.
DR   N-PSDB; ADD01658.
XX
PT   New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or
PT   PRO4978, useful in molecular biology, chromosome and gene mapping, in
PT   generating antisense RNA and DNA, and in gene therapy.
XX
PS   Claim 12; Fig 24; 637pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 156
ADD53841
ID   ADD53841 standard; protein; 285 AA.
XX
AC   ADD53841;
XX
DT   15-JAN-2004  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inhibitor; cytokine release stimulator; tumour;
KW   lung tumour; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003203432-A1.
XX
PD   30-OCT-2003.
XX
PF   10-MAY-2002; 2002US-00142886.
XX
PR   05-JUN-2000; 2000US-0209832P.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
```

XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-875639/81.
DR N-PSDB; ADD53840.
XX
PT New isolated nucleic acid encoding a PRO polypeptide, e.g. PRO1114 or
PT PRO4978, useful in molecular biology, chromosome and gene mapping, in
PT generating antisense RNA and DNA, and in gene therapy.
XX
PS Claim 12; SEQ ID NO 24; 637pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 157
ADD92158

ID ADD92158 standard; protein; 285 AA.
XX
AC ADD92158;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003199030-A1.
XX
PD 23-OCT-2003.
XX
PF 28-MAY-2002; 2002US-00156841.
XX
PR 03-MAR-2000; 2000US-0187202P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-900159/82.
DR N-PSDB; ADD92157.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; SEQ ID NO 24; 636pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO

```
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match            100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 158
ADD91054
ID   ADD91054 standard; protein; 285 AA.
XX
AC   ADD91054;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003199055-A1.
XX
PD   23-OCT-2003.
XX
PF   12-APR-2002; 2002US-00121063.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   10-MAR-1999; 2000WO-US006319.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
```

PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-900165/82.
DR N-PSDB; ADD91053.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; SEQ ID NO 24; 636pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 159
ADE03668
ID ADE03668 standard; protein; 285 AA.
XX
AC ADE03668;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003199057-A1.
XX
PD 23-OCT-2003.
XX
PF 15-APR-2002; 2002US-00123213.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 10-MAR-1999; 2000WO-US006319.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.

PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-900167/82.
DR N-PSDB; ADE03667.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
```

```
Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              ||||||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 160
ADE31965
ID ADE31965 standard; protein; 285 AA.
XX
AC ADE31965;
XX
DT 29-JAN-2004 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inhibitor; cytokine release stimulator; tumour;
KW lung tumour; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003194765-A1.
XX
PD 16-OCT-2003.
XX
PF 09-MAY-2002; 2002US-00142889.
XX
PR 03-MAR-2000; 2000US-0187202P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-899784/82.
DR N-PSDB; ADE31964.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; SEQ ID NO 24; 636pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

```
  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 161
ADE21897
ID ADE21897 standard; protein; 285 AA.
XX
AC ADE21897;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003199056-A1.
XX
PD 23-OCT-2003.
XX
PF 15-APR-2002; 2002US-00123212.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.

PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 10-MAR-1999; 2000WO-US006319.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-900166/82.
DR N-PSDB; ADE21896.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 162
ADD79121
ID ADD79121 standard; protein; 285 AA.
XX
AC ADD79121;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003203428-A1.
XX
PD 30-OCT-2003.
XX
PF 22-APR-2002; 2002US-00127852.
XX
PR 09-DEC-1999; 99US-0170262P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-875635/81.
DR N-PSDB; ADD79120.
XX
PT New isolated, secreted and transmembrane PRO polypeptides and nucleic
PT acids, useful for the diagnosis, prevention and/or treatment of tumors,
PT such as lung, colon, breast, prostate, rectal, cervical and/or liver
PT tumors.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 163
ADE41657
ID ADE41657 standard; protein; 285 AA.
XX
AC ADE41657;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;

KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003194772-A1.
XX
PD 16-OCT-2003.
XX
PF 21-MAY-2002; 2002US-00152386.
XX
PR 03-MAR-2000; 2000US-0187202P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-899788/82.
DR N-PSDB; ADE41656.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 164
ADE17474
ID ADE17474 standard; protein; 285 AA.
XX
AC ADE17474;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003199023-A1.
XX
PD 23-OCT-2003.
XX
PF 17-APR-2002; 2002US-00124821.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 10-MAR-1999; 2000WO-US006319.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.

PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-900155/82.
DR N-PSDB; ADE17473.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; SEQ ID NO 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
```

```
                ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 165
ADD91606
ID   ADD91606 standard; protein; 285 AA.
XX
AC   ADD91606;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003199053-A1.
XX
PD   23-OCT-2003.
XX
PF   12-APR-2002; 2002US-00121053.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   10-MAR-1999; 2000WO-US006319.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   01-JUN-2001; 2001US-00872035.
PR   01-JUN-2001; 2001WO-US017800.
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
PR   29-JUN-2001; 2001WO-US021066.
PR   09-JUL-2001; 2001WO-US021735.
PR   18-JUL-2001; 2001US-00908827.
PR   06-AUG-2001; 2001US-00924419.
PR   09-AUG-2001; 2001US-00927796.
PR   16-AUG-2001; 2001US-00931836.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-900164/82.
DR   N-PSDB; ADD91605.
XX
```

```
PT   Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT   useful for treating pericyte-associated tumors, diabetes and various bone
PT   and/or cartilage disorders, e.g. arthritis.
XX
PS   Claim 12; SEQ ID NO 24; 636pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match          100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 166
ADE33069
ID   ADE33069 standard; protein; 285 AA.
XX
AC   ADE33069;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inhibitor; cytokine release stimulator; tumour;
KW   lung tumour; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003194767-A1.
XX
PD   16-OCT-2003.
XX
PF   16-MAY-2002; 2002US-00147497.
XX
PR   26-AUG-1998;   98US-0097951P.
PR   02-JUN-1999;   99WO-US012252.
PR   25-AUG-1999;   99US-00380137.
PR   30-MAR-2000; 2000WO-US008439.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-899786/82.
DR   N-PSDB; ADE33068.
XX
PT   Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT   useful for treating pericyte-associated tumors, diabetes and various bone
PT   and/or cartilage disorders, e.g. arthritis.
XX
PS   Claim 12; SEQ ID NO 24; 636pp; English.
XX
CC   The invention describes 305 nucleic acids encoding PRO (secreted and
CC   transmembrane) polypeptides (I). (I) is useful for stimulating the
CC   release of TNF-alpha from human blood, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating the proliferation or differentiation of chondrocyte cells,
CC   for stimulating the proliferation of or gene expression in pericyte
CC   cells, for stimulating the release of proteoglycans from cartilage, for
CC   stimulating the proliferation of inner ear utricular supporting cells,
CC   for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC   the release of a cytokine from PBMC cells, for inhibiting the binding of
CC   A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC   cells, for stimulating proliferation of endothelial cells, for detecting
CC   the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC   prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC   are useful for isolating genomic and cDNA nucleotide sequences or
CC   antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC   in assays to identify other proteins or molecules involved in binding
CC   interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC   and gene mapping, in generation of antisense RNA and DNA, in the
CC   preparation of PRO polypeptide, for generating transgenic animals or
CC   knockout animals which in turn are useful in the development and
CC   screening of therapeutically useful reagents, in gene therapy, for
CC   chromosome identification, as chromosome marker, and for generating
CC   probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC   detecting its expression in specific cells, tissues or serum, and for
CC   affinity purification of PRO from recombinant cell culture or natural
CC   sources. (I) and (II) are useful for tissue typing. This is the amino
CC   acid sequence of a novel human secreted and transmembrane PRO
CC   polypeptide.
XX
```

```
SQ   Sequence 285 AA;

  Query Match           100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 167
ADE33621
ID   ADE33621 standard; protein; 285 AA.
XX
AC   ADE33621;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Novel human secreted and transmembrane protein PRO738.
XX
KW   Human; secreted and transmembrane protein; PRO;
KW   Tumour necrosis factor alpha release; TNF-alpha release;
KW   glucose uptake modulator; FFA uptake modulator;
KW   cell proliferation stimulator; cell differentiation stimulator;
KW   cell differentiation inhibitor; cytokine release stimulator; tumour;
KW   lung tumour; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW   cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW   gene therapy; chromosome identification; chromosome marker.
XX
OS   Homo sapiens.
XX
PN   US2003194791-A1.
XX
PD   16-OCT-2003.
XX
PF   11-APR-2002; 2002US-00121046.
XX
PR   31-MAR-1997;   97WO-US005230.
PR   12-JUN-1998;   98WO-US012456.
PR   14-JUL-1998;   98WO-US014552.
PR   28-AUG-1998;   98WO-US017888.
PR   10-SEP-1998;   98WO-US018824.
PR   14-SEP-1998;   98WO-US019093.
PR   14-SEP-1998;   98WO-US019094.
PR   14-SEP-1998;   98WO-US019177.
PR   16-SEP-1998;   98WO-US019330.
PR   17-SEP-1998;   98WO-US019437.
PR   07-OCT-1998;   98WO-US021141.
PR   29-OCT-1998;   98WO-US022991.
PR   29-OCT-1998;   98WO-US022992.
PR   20-NOV-1998;   98WO-US024855.
PR   01-DEC-1998;   98WO-US025108.
PR   05-JAN-1999;   99WO-US000106.
PR   08-MAR-1999;   99WO-US005028.
PR   10-MAR-1999;   99WO-US005190.
PR   10-MAR-1999; 2000WO-US006319.
PR   20-APR-1999;   99WO-US008615.
PR   14-MAY-1999;   99WO-US010733.
PR   02-JUN-1999;   99WO-US012252.
PR   01-SEP-1999;   99WO-US020111.
PR   08-SEP-1999;   99WO-US020594.
PR   13-SEP-1999;   99WO-US020944.
PR   15-SEP-1999;   99WO-US021090.
PR   15-SEP-1999;   99WO-US021547.
PR   05-OCT-1999;   99WO-US023089.
PR   29-NOV-1999;   99WO-US028214.
PR   30-NOV-1999;   99WO-US028313.
PR   30-NOV-1999;   99WO-US028409.
PR   01-DEC-1999;   99WO-US028301.
PR   01-DEC-1999;   99WO-US028634.
PR   02-DEC-1999;   99WO-US028551.
PR   02-DEC-1999;   99WO-US028564.
PR   02-DEC-1999;   99WO-US028565.
PR   16-DEC-1999;   99WO-US030095.
PR   20-DEC-1999;   99WO-US030911.
PR   20-DEC-1999;   99WO-US030999.
PR   22-DEC-1999;   99WO-US030720.
PR   30-DEC-1999;   99WO-US031243.
PR   30-DEC-1999;   99WO-US031274.
PR   05-JAN-2000; 2000WO-US000219.
PR   06-JAN-2000; 2000WO-US000277.
PR   06-JAN-2000; 2000WO-US000376.
PR   11-FEB-2000; 2000WO-US003565.
PR   18-FEB-2000; 2000WO-US004341.
PR   18-FEB-2000; 2000WO-US004342.
PR   22-FEB-2000; 2000WO-US004414.
PR   24-FEB-2000; 2000WO-US004914.
PR   24-FEB-2000; 2000WO-US005004.
PR   01-MAR-2000; 2000WO-US005601.
PR   02-MAR-2000; 2000WO-US005746.
PR   02-MAR-2000; 2000WO-US005841.
PR   15-MAR-2000; 2000WO-US006884.
PR   20-MAR-2000; 2000WO-US007377.
PR   21-MAR-2000; 2000WO-US007532.
PR   30-MAR-2000; 2000WO-US008439.
PR   17-MAY-2000; 2000WO-US013705.
PR   22-MAY-2000; 2000WO-US014042.
PR   30-MAY-2000; 2000WO-US014941.
PR   02-JUN-2000; 2000WO-US015264.
PR   28-JUL-2000; 2000WO-US020710.
PR   11-AUG-2000; 2000WO-US022031.
PR   23-AUG-2000; 2000WO-US023522.
PR   24-AUG-2000; 2000WO-US023328.
PR   08-NOV-2000; 2000WO-US030952.
PR   10-NOV-2000; 2000WO-US030873.
PR   01-DEC-2000; 2000WO-US032678.
PR   20-DEC-2000; 2000US-00747259.
PR   20-DEC-2000; 2000WO-US034956.
PR   28-FEB-2001; 2001US-00796498.
PR   28-FEB-2001; 2001WO-US006520.
PR   01-MAR-2001; 2001WO-US006666.
PR   09-MAR-2001; 2001US-00802706.
PR   14-MAR-2001; 2001US-00808689.
PR   22-MAR-2001; 2001US-00816744.
PR   05-APR-2001; 2001US-00828366.
PR   10-MAY-2001; 2001US-00854208.
PR   10-MAY-2001; 2001US-00854280.
PR   18-MAY-2001; 2001US-00860216.
PR   25-MAY-2001; 2001US-00866028.
PR   25-MAY-2001; 2001US-00866034.
PR   25-MAY-2001; 2001WO-US017092.
PR   01-JUN-2001; 2001US-00872035.
PR   01-JUN-2001; 2001WO-US017800.
PR   05-JUN-2001; 2001US-00874503.
PR   14-JUN-2001; 2001US-00882636.
PR   19-JUN-2001; 2001US-00886342.
PR   20-JUN-2001; 2001WO-US019692.
PR   21-JUN-2001; 2001US-00887879.
PR   22-JUN-2001; 2001WO-US020116.
```

PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-899790/82.
DR N-PSDB; ADE33620.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; SEQ ID NO 24; 636pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
Db 1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
Db 61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
Db 121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
Db 181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy 241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
Db 241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285

RESULT 168
ADD79673
ID ADD79673 standard; protein; 285 AA.
XX
AC ADD79673;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003207417-A1.
XX
PD 06-NOV-2003.
XX
PF 07-MAY-2002; 2002US-00140805.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 10-MAR-1999; 2000WO-US006319.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.

PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-875867/81.
DR N-PSDB; ADD79672.
XX
PT New PRO nucleic acid, useful for manufacturing a medicament for
PT diagnosing or treating tumor, for chromosome mapping or for tissue
PT typing.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 169
ADE34544
ID ADE34544 standard; protein; 285 AA.
XX
AC ADE34544;
XX
DT 29-JAN-2004 (first entry)

```
XX
DE   Human B-Lymphocyte stimulator #SEQ ID 28.
XX
KW   Gene therapy; vaccine; rheumatoid arthritis; gene modulation.
XX
OS   Homo sapiens.
XX
PN   WO2003048323-A2.
XX
PD   12-JUN-2003.
XX
PF   03-DEC-2002; 2002WO-US038461.
XX
PR   03-DEC-2001; 2001US-0337429P.
XX
PA   (BRIM ) BRISTOL-MYERS SQUIBB CO.
PA   (CARM/) CARMAN J.
PA   (NADL/) NADLER S G.
PA   (BOWE/) BOWEN M.
PA   (NEUB/) NEUBAUER M.
PA   (LUPP/) LU P.
XX
PI   Carman J,  Nadler SG,  Bowen M,  Neubauer M,  Lu P;
XX
DR   WPI; 2003-513754/48.
DR   N-PSDB; ADE34543.
XX
PT   Identifying a compound that modulates the activity of rheumatoid
PT   arthritis-associated gene or protein by determining whether the test
PT   compound modulates the activity of the gene or protein expressed in the
PT   cell contacted with the compound.
XX
PS   Example 1; Fig 6; 170pp; English.
XX
CC   The invention relates to an assay for identifying a compound that
CC   modulates the activity of a gene or protein associated with rheumatoid
CC   arthritis. The method of the invention comprises providing a cell
CC   expressing a gene or protein associated with rheumatoid arthritis,
CC   contacting the cell with a test compound, and determining whether the
CC   test compound modulates the activity of the gene or protein. The method
CC   of the invention is useful for preparing a composition for treating
CC   rheumatoid arthritis. Sequences given in ADE34553-ADE34597 represents
CC   genes and proteins associated with rhematoid arthritis.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 170
ADD92710
ID   ADD92710 standard; protein; 285 AA.
XX
AC   ADD92710;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003194768-A1.
XX
PD   16-OCT-2003.
XX
PF   21-MAY-2002; 2002US-00152371.
XX
PR   03-MAR-2000; 2000US-0187202P.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-899787/82.
DR   N-PSDB; ADD92709.
XX
PT   Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT   useful for treating pericyte-associated tumors, diabetes and various bone
PT   and/or cartilage disorders, e.g. arthritis.
XX
PS   Claim 12; SEQ ID NO 24; 636pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
```

CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 171
ADE19130
ID ADE19130 standard; protein; 285 AA.
XX
AC ADE19130;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003199025-A1.
XX
PD 23-OCT-2003.
XX
PF 21-MAY-2002; 2002US-00152385.
XX
PR 03-MAR-2000; 2000US-0187202P.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-900156/82.
DR N-PSDB; ADE19129.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; SEQ ID NO 24; 648pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 172
ADE18578

```
ID   ADE18578 standard; protein; 285 AA.
XX
AC   ADE18578;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003199026-A1.
XX
PD   23-OCT-2003.
XX
PF   20-MAY-2002; 2002US-00152393.
XX
PR   03-MAR-2000; 2000US-0187202P.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
DR   WPI; 2003-900157/82.
DR   N-PSDB; ADE18577.
XX
PT   Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT   useful for treating pericyte-associated tumors, diabetes and various bone
PT   and/or cartilage disorders, e.g. arthritis.
XX
PS   Claim 12; SEQ ID NO 24; 636pp; English.
XX
CC   The invention relates to isolated human PRO polypeptides (secreted and
CC   transmembrane polypeptides) and the polynucleotides encoding them. The
CC   invention also relates to an antibody which specifically binds to a PRO
CC   polypeptide, a method for stimulating the release of tumour necrosis
CC   factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC   proliferation or differentiation of chondrocyte cells and a method for
CC   detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC   colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC   polynucleotides are useful in molecular biology, including uses as
CC   hybridisation probes, in chromosome and gene mapping, in generating
CC   antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC   be used in preparing PRO polypeptides by recombinant techniques and in
CC   generating either transgenic animals or knock-out animals which are
CC   useful in the development and screening of therapeutically useful
CC   reagents. The PRO polypeptides or antibodies are used in preparing a
CC   medicament for treating a condition responsive to the polypeptides or
CC   antibodies, such as tumours, for stimulating and inhibiting proliferation
CC   of human microvascular endothelial cells, for modulating the uptake of
CC   glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC   stimulating differentiation of adipocyte cells, for stimulating
CC   proliferation of or gene expression in pericyte cells, for stimulating
CC   the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC   cells, for inducing endothelial cell tube formation and for treating
CC   various bone and/or cartilage disorders such as sports injuries and
CC   arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC   from cartilage are useful for treating sports-related joint problems,
CC   articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC   polypeptides are also useful for treating various mammalian haemoglobin-
CC   associated disorders such as various thalassaemias and conditions which
CC   may benefit from enhanced local immune system cell infiltration. This
CC   sequence represents a human PRO polypeptide of the invention. Note: The
CC   sequence data for this patent is also available in electronic format from
CC   USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ   Sequence 285 AA;

  Query Match             100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity   100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285


RESULT 173
ADE42774
ID   ADE42774 standard; protein; 285 AA.
XX
AC   ADE42774;
XX
DT   29-JAN-2004  (first entry)
XX
DE   Human PRO polypeptide #12.
XX
KW   Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW   tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW   cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW   liver; microvascular endothelial cell; glucose; FFA;
KW   skeletal muscle cell; adipocyte cell; pericyte cell;
KW   inner ear utricular supporting cell; T-lymphocyte cell;
KW   endothelial cell tube formation; bone disorder; cartilage disorder;
KW   sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW   rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW   immune system cell infiltration.
XX
OS   Homo sapiens.
XX
PN   US2003199033-A1.
XX
PD   23-OCT-2003.
XX
PF   28-MAY-2002; 2002US-00156845.
XX
PR   05-JUN-2000; 2000US-0209832P.
PR   01-DEC-2000; 2000WO-US032678.
PR   19-DEC-2001; 2001US-00028072.
XX
PA   (GETH ) GENENTECH INC.
XX
PI   Baker KP,  Beresini M,  Deforge L,  Desnoyers L,  Filvaroff E,  Gao W;
PI   Gerritsen ME,  Goddard A,  Godowski PJ,  Gurney AL,  Sherwood S;
PI   Smith V,  Stewart TA,  Tumas D,  Watanabe CK,  Wood WI,  Zhang Z;
XX
```

DR WPI; 2003-900162/82.
DR N-PSDB; ADE42773.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; Fig 24; 636pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 174
ADD95563
ID ADD95563 standard; protein; 285 AA.
XX
AC ADD95563;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003199059-A1.
XX
PD 23-OCT-2003.
XX
PF 15-APR-2002; 2002US-00123322.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 10-MAR-1999; 2000WO-US006319.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.

PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-900168/82.
DR N-PSDB; ADD95562.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 175
ADE22449
ID ADE22449 standard; protein; 285 AA.
XX
AC ADE22449;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;

KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003199064-A1.
XX
PD 23-OCT-2003.
XX
PF 19-APR-2002; 2002US-00125932.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 10-MAR-1999; 2000WO-US006319.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.
PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-900169/82.
DR N-PSDB; ADE22448.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for

CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 176
ADD78567
ID ADD78567 standard; protein; 285 AA.
XX
AC ADD78567;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003203429-A1.
XX
PD 30-OCT-2003.
XX
PF 22-APR-2002; 2002US-00127900.
XX
PR 05-JUN-2000; 2000US-0209832P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-875636/81.
DR N-PSDB; ADD78566.
XX
PT New isolated, secreted and transmembrane PRO polypeptides and nucleic
PT acids, useful for the diagnosis, prevention and/or treatment of tumors,
PT such as lung, colon, breast, prostate, rectal, cervical and/or liver
PT tumors.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
```

```
Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              ||||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 177
ADE32517
ID ADE32517 standard; protein; 285 AA.
XX
AC ADE32517;
XX
DT 29-JAN-2004 (first entry)
XX
DE Novel human secreted and transmembrane protein PRO738.
XX
KW Human; secreted and transmembrane protein; PRO;
KW Tumour necrosis factor alpha release; TNF-alpha release;
KW glucose uptake modulator; FFA uptake modulator;
KW cell proliferation stimulator; cell differentiation stimulator;
KW cell differentiation inhibitor; cytokine release stimulator; tumour;
KW lung tumour; colon tumour; breast tumour; prostate tumour; rectal tumour;
KW cervical tumour; liver tumour; chromosome mapping; gene mapping;
KW gene therapy; chromosome identification; chromosome marker.
XX
OS Homo sapiens.
XX
PN US2003194766-A1.
XX
PD 16-OCT-2003.
XX
PF 14-MAY-2002; 2002US-00145874.
XX
PR 05-JUN-2000; 2000US-0209832P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-899785/82.
DR N-PSDB; ADE32516.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; SEQ ID NO 24; 636pp; English.
XX
CC The invention describes 305 nucleic acids encoding PRO (secreted and
CC transmembrane) polypeptides (I). (I) is useful for stimulating the
CC release of TNF-alpha from human blood, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating the proliferation or differentiation of chondrocyte cells,
CC for stimulating the proliferation of or gene expression in pericyte
CC cells, for stimulating the release of proteoglycans from cartilage, for
CC stimulating the proliferation of inner ear utricular supporting cells,
CC for stimulating the proliferation of T-lymphocyte cells, for stimulating
CC the release of a cytokine from PBMC cells, for inhibiting the binding of
CC A-peptide to factor VIIA, for inhibiting the differentiation of adipocyte
CC cells, for stimulating proliferation of endothelial cells, for detecting
CC the presence of tumour in a mammal. The tumour is lung, colon, breast,
CC prostate, rectal, cervical or liver tumour. The oligonucleotide probes
CC are useful for isolating genomic and cDNA nucleotide sequences or
CC antisense probes. (I) is also useful as therapeutic agent. PRO is useful
CC in assays to identify other proteins or molecules involved in binding
CC interaction. A polynucleotide (II) encoding (I) is useful in chromosome
CC and gene mapping, in generation of antisense RNA and DNA, in the
CC preparation of PRO polypeptide, for generating transgenic animals or
CC knockout animals which in turn are useful in the development and
CC screening of therapeutically useful reagents, in gene therapy, for
CC chromosome identification, as chromosome marker, and for generating
CC probes. An anti-(I)-antibody is useful in diagnostic assays for PRO, e.g.
CC detecting its expression in specific cells, tissues or serum, and for
CC affinity purification of PRO from recombinant cell culture or natural
CC sources. (I) and (II) are useful for tissue typing. This is the amino
CC acid sequence of a novel human secreted and transmembrane PRO
CC polypeptide.
XX
SQ Sequence 285 AA;

```
  Query Match            100.0%;  Score 1451;  DB 7;  Length 285;
  Best Local Similarity  100.0%;  Pred. No. 1.3e-144;
  Matches  285;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 178
ADE42209
ID ADE42209 standard; protein; 285 AA.
XX
AC ADE42209;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003199032-A1.
XX
PD 23-OCT-2003.
XX
PF 28-MAY-2002; 2002US-00156844.
XX
PR 03-MAR-2000; 2000US-0187202P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;

PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-900161/82.
DR N-PSDB; ADE42208.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; Fig 24; 636pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 179

ADD80225
ID ADD80225 standard; protein; 285 AA.
XX
AC ADD80225;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003207418-A1.
XX
PD 06-NOV-2003.
XX
PF 07-MAY-2002; 2002US-00140809.
XX
PR 31-MAR-1997; 97WO-US005230.
PR 12-JUN-1998; 98WO-US012456.
PR 14-JUL-1998; 98WO-US014552.
PR 28-AUG-1998; 98WO-US017888.
PR 10-SEP-1998; 98WO-US018824.
PR 14-SEP-1998; 98WO-US019093.
PR 14-SEP-1998; 98WO-US019094.
PR 14-SEP-1998; 98WO-US019177.
PR 16-SEP-1998; 98WO-US019330.
PR 17-SEP-1998; 98WO-US019437.
PR 07-OCT-1998; 98WO-US021141.
PR 29-OCT-1998; 98WO-US022991.
PR 29-OCT-1998; 98WO-US022992.
PR 20-NOV-1998; 98WO-US024855.
PR 01-DEC-1998; 98WO-US025108.
PR 05-JAN-1999; 99WO-US000106.
PR 08-MAR-1999; 99WO-US005028.
PR 10-MAR-1999; 99WO-US005190.
PR 10-MAR-1999; 2000WO-US006319.
PR 20-APR-1999; 99WO-US008615.
PR 14-MAY-1999; 99WO-US010733.
PR 02-JUN-1999; 99WO-US012252.
PR 01-SEP-1999; 99WO-US020111.
PR 08-SEP-1999; 99WO-US020594.
PR 13-SEP-1999; 99WO-US020944.
PR 15-SEP-1999; 99WO-US021090.
PR 15-SEP-1999; 99WO-US021547.
PR 05-OCT-1999; 99WO-US023089.
PR 29-NOV-1999; 99WO-US028214.
PR 30-NOV-1999; 99WO-US028313.
PR 30-NOV-1999; 99WO-US028409.
PR 01-DEC-1999; 99WO-US028301.
PR 01-DEC-1999; 99WO-US028634.
PR 02-DEC-1999; 99WO-US028551.
PR 02-DEC-1999; 99WO-US028564.
PR 02-DEC-1999; 99WO-US028565.
PR 16-DEC-1999; 99WO-US030095.
PR 20-DEC-1999; 99WO-US030911.
PR 20-DEC-1999; 99WO-US030999.
PR 22-DEC-1999; 99WO-US030720.
PR 30-DEC-1999; 99WO-US031243.
PR 30-DEC-1999; 99WO-US031274.
PR 05-JAN-2000; 2000WO-US000219.
PR 06-JAN-2000; 2000WO-US000277.
PR 06-JAN-2000; 2000WO-US000376.

PR 11-FEB-2000; 2000WO-US003565.
PR 18-FEB-2000; 2000WO-US004341.
PR 18-FEB-2000; 2000WO-US004342.
PR 22-FEB-2000; 2000WO-US004414.
PR 24-FEB-2000; 2000WO-US004914.
PR 24-FEB-2000; 2000WO-US005004.
PR 01-MAR-2000; 2000WO-US005601.
PR 02-MAR-2000; 2000WO-US005746.
PR 02-MAR-2000; 2000WO-US005841.
PR 15-MAR-2000; 2000WO-US006884.
PR 20-MAR-2000; 2000WO-US007377.
PR 21-MAR-2000; 2000WO-US007532.
PR 30-MAR-2000; 2000WO-US008439.
PR 17-MAY-2000; 2000WO-US013705.
PR 22-MAY-2000; 2000WO-US014042.
PR 30-MAY-2000; 2000WO-US014941.
PR 02-JUN-2000; 2000WO-US015264.
PR 28-JUL-2000; 2000WO-US020710.
PR 11-AUG-2000; 2000WO-US022031.
PR 23-AUG-2000; 2000WO-US023522.
PR 24-AUG-2000; 2000WO-US023328.
PR 08-NOV-2000; 2000WO-US030952.
PR 10-NOV-2000; 2000WO-US030873.
PR 01-DEC-2000; 2000WO-US032678.
PR 20-DEC-2000; 2000US-00747259.
PR 20-DEC-2000; 2000WO-US034956.
PR 28-FEB-2001; 2001US-00796498.
PR 28-FEB-2001; 2001WO-US006520.
PR 01-MAR-2001; 2001WO-US006666.
PR 09-MAR-2001; 2001US-00802706.
PR 14-MAR-2001; 2001US-00808689.
PR 22-MAR-2001; 2001US-00816744.
PR 05-APR-2001; 2001US-00828366.
PR 10-MAY-2001; 2001US-00854208.
PR 10-MAY-2001; 2001US-00854280.
PR 18-MAY-2001; 2001US-00860216.
PR 25-MAY-2001; 2001US-00866028.
PR 25-MAY-2001; 2001US-00866034.
PR 25-MAY-2001; 2001WO-US017092.
PR 01-JUN-2001; 2001US-00872035.
PR 01-JUN-2001; 2001WO-US017800.
PR 05-JUN-2001; 2001US-00874503.
PR 14-JUN-2001; 2001US-00882636.
PR 19-JUN-2001; 2001US-00886342.
PR 20-JUN-2001; 2001WO-US019692.
PR 21-JUN-2001; 2001US-00887879.
PR 22-JUN-2001; 2001WO-US020116.
PR 29-JUN-2001; 2001WO-US021066.
PR 09-JUL-2001; 2001WO-US021735.
PR 18-JUL-2001; 2001US-00908827.
PR 06-AUG-2001; 2001US-00924419.
PR 09-AUG-2001; 2001US-00927796.
PR 16-AUG-2001; 2001US-00931836.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-875868/81.
DR N-PSDB; ADD80224.
XX
PT New PRO nucleic acid, useful for manufacturing a medicament for
PT diagnosing or treating tumor, for chromosome mapping or for tissue
PT typing.
XX
PS Claim 12; Fig 24; 638pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC the USPTO website at seqdata.uspto.gov.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 180
ADD89253
ID ADD89253 standard; protein; 285 AA.
XX
AC ADD89253;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;

KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003199028-A1.
XX
PD 23-OCT-2003.
XX
PF 22-MAY-2002; 2002US-00153552.
XX
PR 03-MAR-2000; 2000US-0187202P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-900158/82.
DR N-PSDB; ADD89252.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 181
ADE40537
ID ADE40537 standard; protein; 285 AA.
XX
AC ADE40537;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003199031-A1.
XX
PD 23-OCT-2003.
XX
PF 28-MAY-2002; 2002US-00156842.
XX
PR 05-JUN-2000; 2000US-0209832P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-900160/82.
DR N-PSDB; ADE40536.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis

CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60

Qy         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db         61 LTVVSFYQVAALQGDLASLRAELQGHHAEKLPAGAGAPKAGLEEAPAVTAGLKIFEPPAP 120

Qy        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        121 GEGNSSQNSRNKRAVQGPEETVTQDCLQLIADSETPTIQKGSYTFVPWLLSFKRGSALEE 180

Qy        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240
              ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db        181 KENKILVKETGYFFIYGQVLYTDKTYAMGHLIQRKKVHVFGDELSLVTLFRCIQNMPETL 240

Qy        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
              |||||||||||||||||||||||||||||||||||||||||||||
Db        241 PNNSCYSAGIAKLEEGDELQLAIPRENAQISLDGDVTFFGALKLL 285
```

RESULT 182
ADE04336
ID ADE04336 standard; protein; 285 AA.
XX
AC ADE04336;
XX
DT 29-JAN-2004 (first entry)
XX
DE Human PRO polypeptide #12.
XX
KW Human; PRO; secreted polypeptide; transmembrane polypeptide;
KW tumour necrosis factor-alpha; TNF-alpha; chondrocyte cell; tumour;
KW cancer; adrenal; lung; colon; breast; prostate; rectum; kidney; cervix;
KW liver; microvascular endothelial cell; glucose; FFA;
KW skeletal muscle cell; adipocyte cell; pericyte cell;
KW inner ear utricular supporting cell; T-lymphocyte cell;
KW endothelial cell tube formation; bone disorder; cartilage disorder;
KW sports injury; proteoglycan; articular cartilage defect; osteoarthritis;
KW rheumatoid arthritis; haemoglobin-associated disorder thalassaemia;
KW immune system cell infiltration.
XX
OS Homo sapiens.
XX
PN US2003199034-A1.
XX
PD 23-OCT-2003.
XX
PF 28-MAY-2001; 2001US-00156846.
XX
PR 03-MAR-2000; 2000US-0187202P.
PR 01-DEC-2000; 2000WO-US032678.
PR 19-DEC-2001; 2001US-00028072.
XX
PA (GETH) GENENTECH INC.
XX
PI Baker KP, Beresini M, Deforge L, Desnoyers L, Filvaroff E, Gao W;
PI Gerritsen ME, Goddard A, Godowski PJ, Gurney AL, Sherwood S;
PI Smith V, Stewart TA, Tumas D, Watanabe CK, Wood WI, Zhang Z;
XX
DR WPI; 2003-900163/82.
DR N-PSDB; ADE04335.
XX
PT Two hundred and seventy five nucleic acids encoding PRO polypeptides,
PT useful for treating pericyte-associated tumors, diabetes and various bone
PT and/or cartilage disorders, e.g. arthritis.
XX
PS Claim 12; Fig 24; 637pp; English.
XX
CC The invention relates to isolated human PRO polypeptides (secreted and
CC transmembrane polypeptides) and the polynucleotides encoding them. The
CC invention also relates to an antibody which specifically binds to a PRO
CC polypeptide, a method for stimulating the release of tumour necrosis
CC factor-alpha (TNF-alpha) from human blood, a method for stimulating the
CC proliferation or differentiation of chondrocyte cells and a method for
CC detecting the presence of a tumour in a mammal (e.g. adrenal, lung,
CC colon, breast, prostate, rectal, kidney, cervical and liver tumours). The
CC polynucleotides are useful in molecular biology, including uses as
CC hybridisation probes, in chromosome and gene mapping, in generating
CC antisense RNA and DNA and in gene therapy. The polynucleotides may also
CC be used in preparing PRO polypeptides by recombinant techniques and in
CC generating either transgenic animals or knock-out animals which are
CC useful in the development and screening of therapeutically useful
CC reagents. The PRO polypeptides or antibodies are used in preparing a
CC medicament for treating a condition responsive to the polypeptides or
CC antibodies, such as tumours, for stimulating and inhibiting proliferation
CC of human microvascular endothelial cells, for modulating the uptake of
CC glucose or FFA by skeletal muscle cells or adipocyte cells, for
CC stimulating differentiation of adipocyte cells, for stimulating
CC proliferation of or gene expression in pericyte cells, for stimulating
CC the proliferation of inner ear utricular supporting cells or T-lymphocyte
CC cells, for inducing endothelial cell tube formation and for treating
CC various bone and/or cartilage disorders such as sports injuries and
CC arthritis. PRO polypeptides which stimulate the release of proteoglycans
CC from cartilage are useful for treating sports-related joint problems,
CC articular cartilage defects, osteoarthritis and rheumatoid arthritis. PRO
CC polypeptides are also useful for treating various mammalian haemoglobin-
CC associated disorders such as various thalassaemias and conditions which
CC may benefit from enhanced local immune system cell infiltration. This
CC sequence represents a human PRO polypeptide of the invention. Note: The
CC sequence data for this patent is also available in electronic format from
CC USPTO at seqdata.uspto.gov/sequence.html.
XX
SQ Sequence 285 AA;

Query Match 100.0%; Score 1451; DB 7; Length 285;
Best Local Similarity 100.0%; Pred. No. 1.3e-144;
Matches 285; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```
Qy          1 MDDSTEREQSRLTSCLKKREEMKLKECVSILPRKESPSVRSSKDGKLLAATLLLALLSCC 60
```